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# ELECTRONIC FUN with COMPUTERS & GAMES

## Hollywood Video Game Explosion:

**Raiders! ET!**
**Star Wars!**
**Star Trek!**

**TEST REPORTS:**
- **$99 Computer**
- **Atari 5200**
- **Vectrex**

**PLUS...**
**$20,000 in Prizes, Game Reviews**

PREMIERE ISSUE

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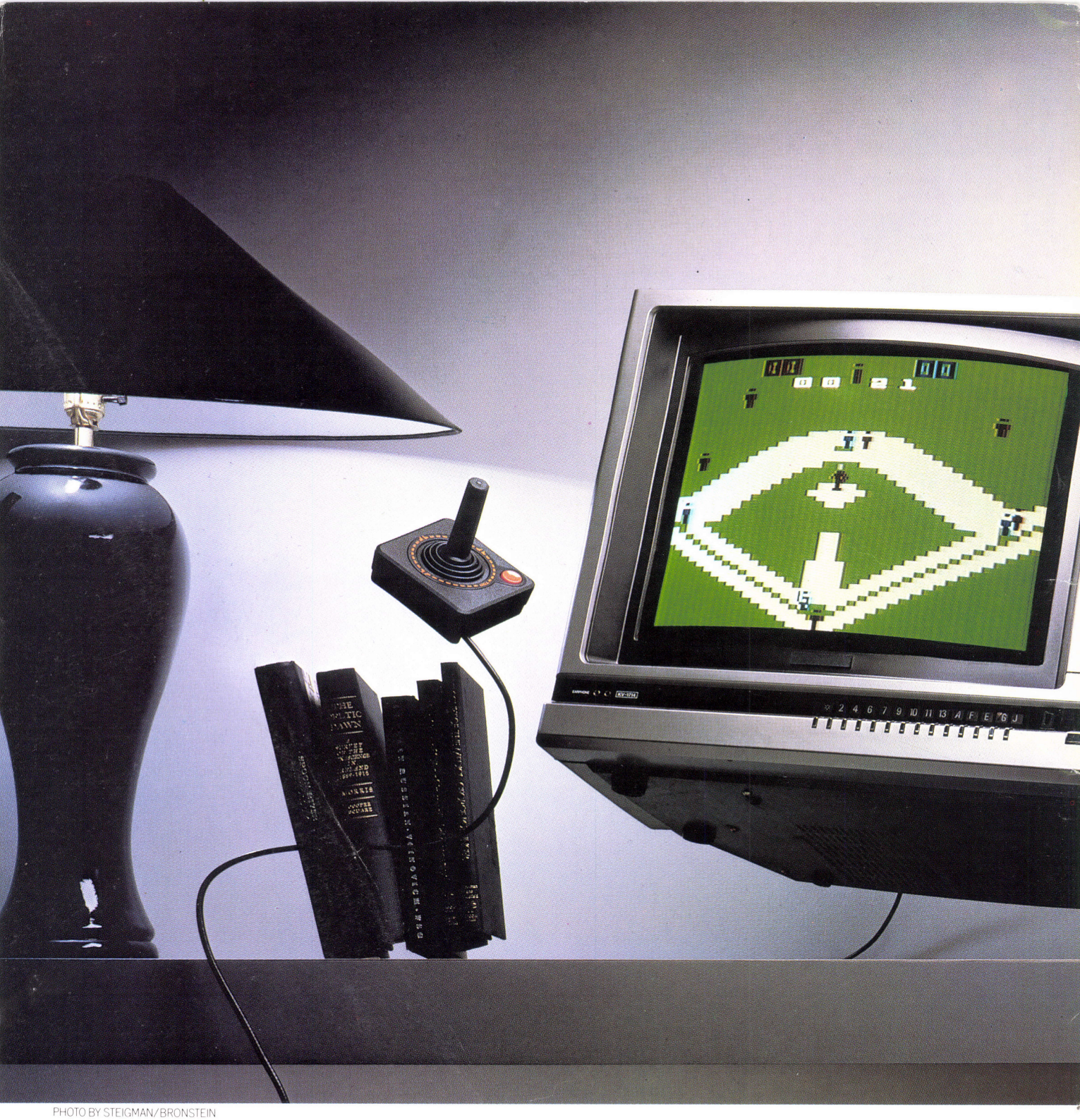

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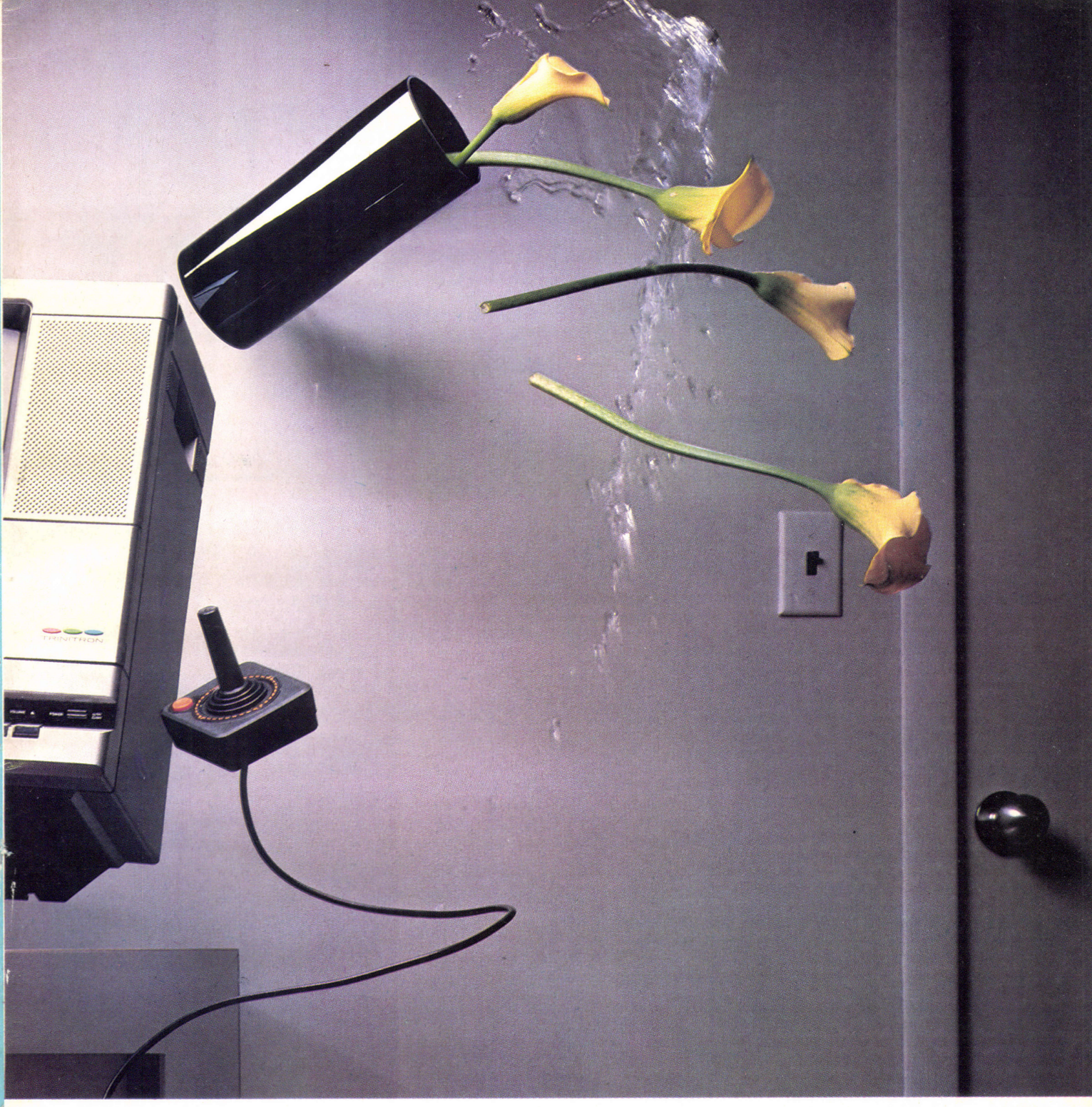

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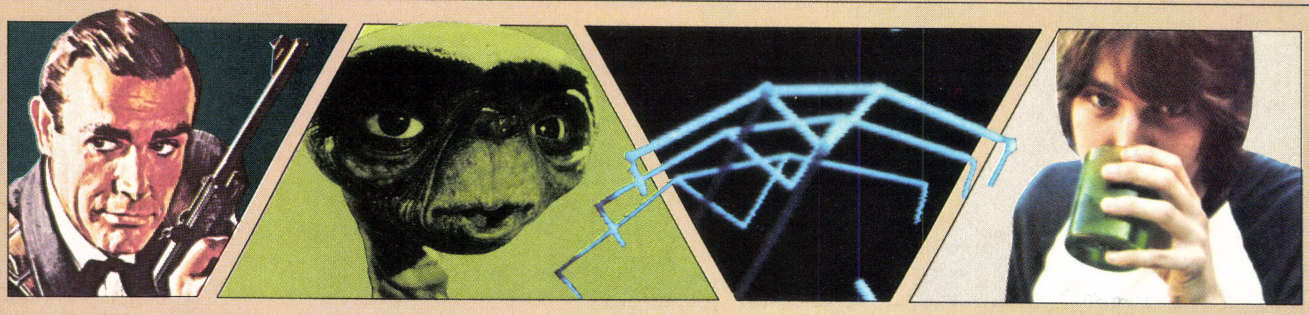
*Each sold separately. Some games not yet available.



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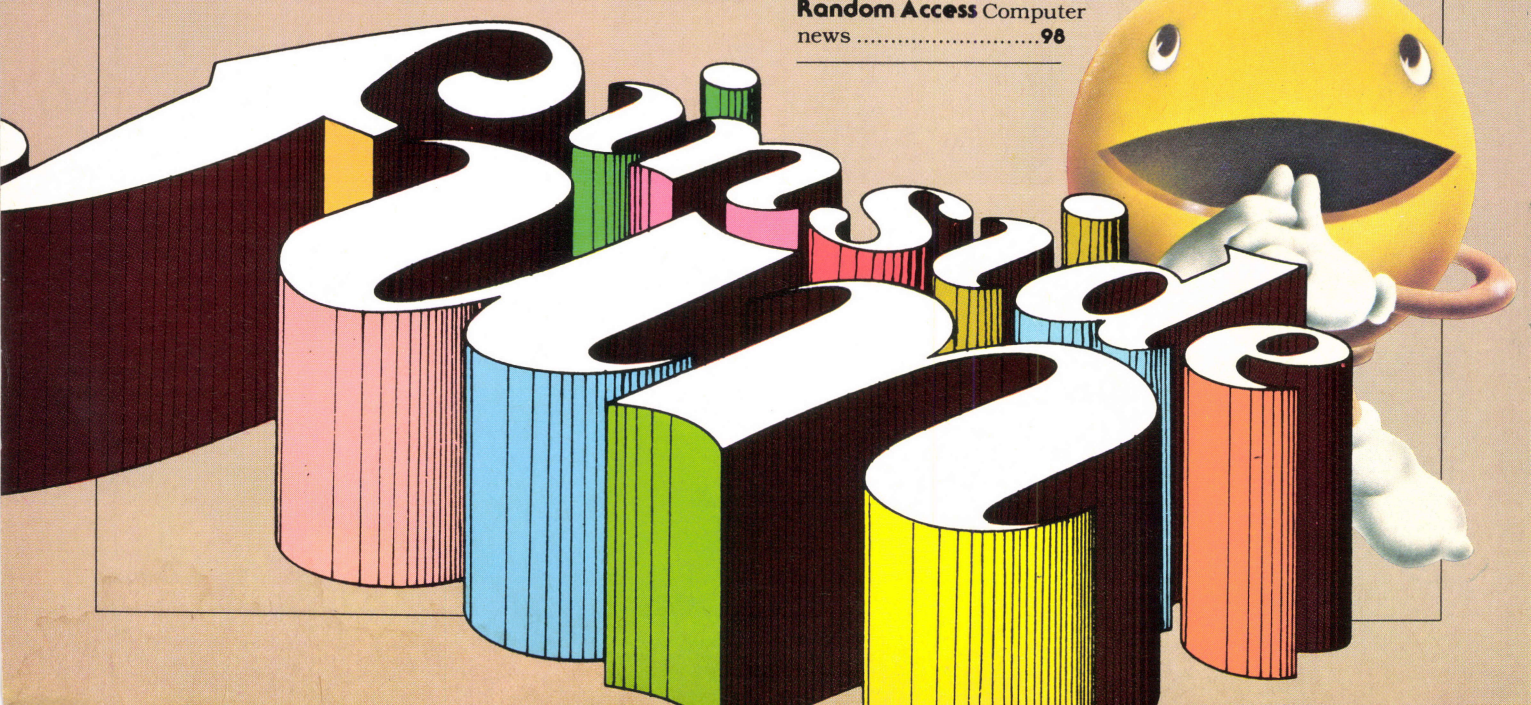

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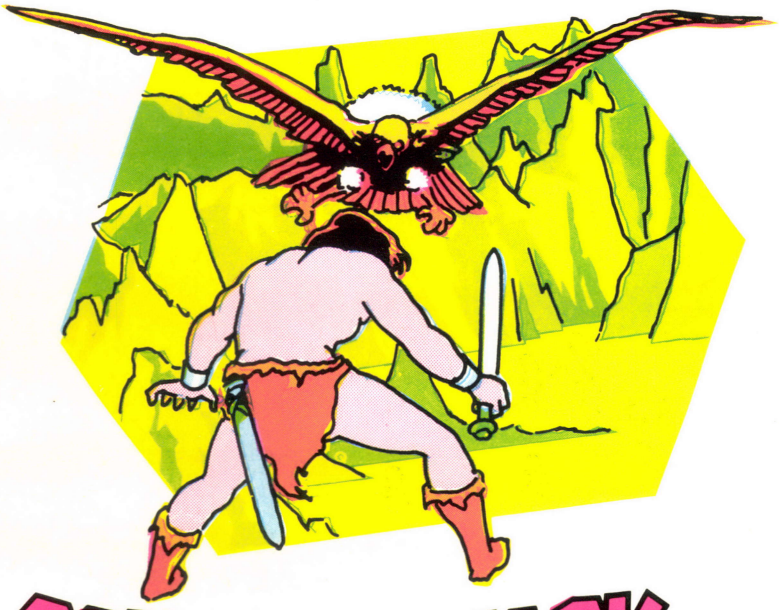

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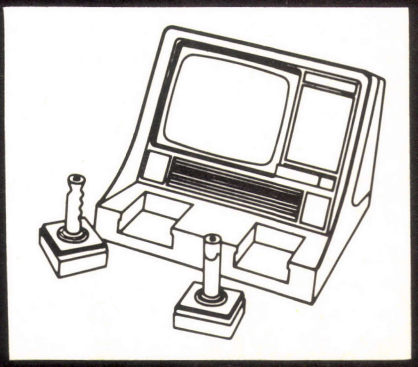

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# Editorial

# A new video game magazine? Why?

*The home computer isn't in widespread use yet—but it will be soon. Microprocessor-based video games are the door openers. As you game players are becoming more proficient and seeking greater challenges, you are demanding more complex and sophisticated hardware. Enter the home computer. With improved color graphics and other new technology that's coming, the possibilites for gaming are mind boggling.*

*We've looked into our crystal ball and decided the future is close enough to give you the best of both worlds today. With more than a half dozen video games magazines already on the newsstands, we understand clearly that we have to give you a better product than any of the others. If you read through this magazine you'll see we've done it. We've also created the most accessible, amusing, literate-yet-easy-to-read magazine about home computers available anywhere. Best of all, we've accomplished this with a style and sense of humor that makes* Electronic Fun *one of the most engaging magazines you can buy.*

*On that subject, please note that we offer a larger magazine for less money than most so-called games magazines. At the same time we spend more money on our product. Why? Because, unlike publishers who are attempting to make a quick buck on the current games "craze," we think video games, and* Electronic Fun, *will be around for a long, long time. We figure the way to make you a regular reader is to offer you a better magazine with more value for now—and the future. It's not a terribly original idea, but it's the right one.*

*Our heads are not buried in video game consoles. We are listening to what you want in a magazine. If you like what we're doing, let us know. If you don't like* EF, *we want to hear about it all the more. You are the programmer here and we can be the ideal data base . . . with your input.*

*The Editors*

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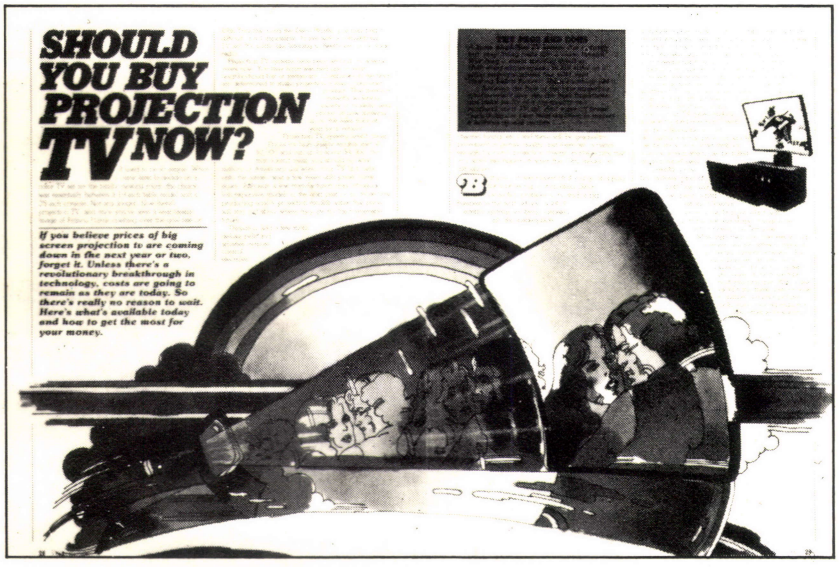
# The Only Video Magazine You'll Ever Need.

**Every month *Video Review's* experts offer informative, thought-provoking, fun-to-read reviews of video programming—new and old—more than 100 in each issue.**




## Get The Most Out of Video

*Video Review* is the best news yet for video enthusiasts who want to create their own productions. Videotaping tips from top Hollywood and network TV pros like Brian DePalma, Robert Altman, Otto Preminger, and Dave Wilson—director of "Saturday Night Live"—are offered in *Video Review's* monthly *Direct It* series. You'll also learn how best to use video exchange clubs. Build your own satellite TV receiver. Bring school home to your family. Get answers to questions on every aspect of video use with a subscription to the only video magazine as bold, fresh and entertaining as the world it covers.

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Each issue of *Video Review* contains in-depth feature program reviews by some of the country's toughest critics, including Rex Reed, Andrew Sarris, Leonard Maltin and Clive Barnes—of movies, sporting events, jazz, rock, opera, science, children's, instructional, and even X-rated programs—over 1200 reviews a year. These valuable critiques will help you build a truly satisfying home video library, without costly buying errors.

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Each month *Video Review* submits new equipment to the world-renowned CBS Technology Center for exhaustive technical evaluation. Technical whiz Len Feldman then translates the test data into precise, easy-to-understand product performance reports. Only *Video Review* readers learn which new features are true advancements, and which are merely costly experiments. Which new products will stand the test of time, and which may well become obsolete. Vital information that could save you a bundle is contained in each and every issue of *Video Review.*

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# letters to the editors

## EQUAL TIME

All I ever hear about are Atari and Intellivision. Why doesn't the video game press give more coverage to Odyssey, Emerson, Fairchild and other lesser-known systems? Will you be giving equal space to all companies?

Richard Milner
North Carolina

*No.* Electronic Fun *will* inform *you of every company, every product and every new development in the field of video and computer gaming. But if 80 percent of our readers own a _____ system, it would be wrong for us to give large amounts of space to other less popular systems. This is the classic Catch-22—How can we devote space to products few people own, and how can the product gain acceptance if we don't devote space to it?*

## WHY COMPUTERS?

Yours is the first video game magazine to stress the importance of home computers. Why? I don't have a computer and none of my friends do either.

Colette Connor
Rhode Island

*In the past, the price of computers prevented a lot of people from fully embracing them. But as technology advances, the cost goes down. You can get a very good computer for under $300 now, and there is even one for $99 (see later in this issue). This is competitive with the price of a video game system.*

*It is our feeling (and the feeling of the video game manufacturers) that it will not be long before consumers begin buying computers (which play games too) in the numbers they are now buying game systems. At* EF, *we are trying to lead the way, devoting some of the magazine to video games and some of it to computer games.*

## THE CHALLENGE

I've seen six, maybe seven video games magazines on the stands and now *you* guys are coming out with one. What are you going to do that the other ones don't?

Amy Rosario
Michigan

*We think a video game magazine should be like a video game itself. That means that the most important thing is that the magazine be FUN. So in addition to up-to-the-minute information on what the major manufacturers have up their sleeves, we'll be giving you humor, contests, challenging features and more entertainment than those other magazines. Video games are games and games should be fun to play and read about.*

## UNADVENTUROUS

I hate adventure games. I don't see why anyone would want to spend so much time looking for stupid keys and treasures and so forth when they could be playing an exciting game like *Defender*. Are you going to do a lot on adventure games?

Bruce Foster
New Hampshire

*That depends on you. Your vote is in and if the majority of our readers tell us they hate adventure games, you won't be seeing much of them in* EF. *But if a lot of folks like them, we will certainly feature them. The history of video games is rooted in action and space games, and these will never be neglected.*

## ODYSSEY FAN

I think that some magazine should do a story on the Odyssey³ that is coming out next year. What kind of games will it have? I have an Odyssey² and I want to know if the games are compatible.

Scott Brown
Pennsylvania

*As soon as we have the system in our hands, you'll be getting a complete test report. Right now we can tell you this—an expansion module will be available for the Odyssey³ so you will be able to play all your Odyssey² games on it.*

## KILL THE ARCADES

Every day I read an article in the paper about this community or that community banning video game arcades. Where do you people stand?

Sue Newe
New Jersey

*Right in front of the machine, with our hands on the joystick. We think the issue is ridiculous. Any time the nation's youth get excited about a new activity, be it pinball or pool tables or rock and roll, somebody's going to jump up and claim that particular activity will turn us into a nation of zombies. We love video games and America loves video games. A handful of grumpy soreheads are not going to prevent you from doing what you like to do.* □

*Write to us! We can't promise that we'll answer every letter, but we will read them all. We welcome your comments, advice and questions. Send your letters to:* Electronic Fun, *350 E. 81st St., New York, NY 10028.*

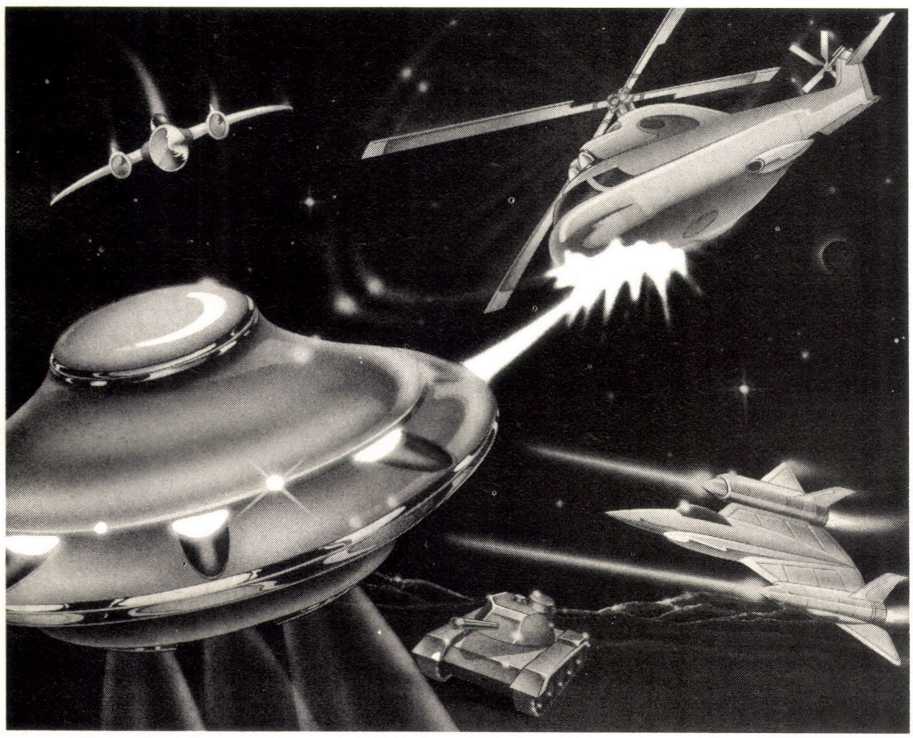
"SWEATY PALMS ARE GUARANTEED"

5 EXCITING NEW GAMES!

# US GAMES NEWS

## SURPRISE ATTACK ON YOUR ATARI® SYSTEM!

# ALIENS TAKE OVER THE EARTH!



**Alien Attack Is Non-Stop. Photon Torpedoes Are Suspected**

## YOU AND YOU ALONE CAN SAVE PLANET!

★ ★ ★

Reliable sources have confirmed that aliens have taken over the earth. Every moving earth vehicle is theirs and so is the land. In a surprise move, you have captured one of their flying saucers. You scream through space ...to the right, left...up, down... firing directable missiles into hundreds of alien ships, missiles and obstacles. But that doesn't stop the aliens. They fire back relentlessly. Can you beat the aliens with their own machine? You can...if you're fast enough...accurate enough...if you don't lose your nerve!

The name of the game is Space Jockey. Beat it if you can!

★ ★ ★

## FOUR MORE HOT ONES!

**WORD ZAPPER!** Your spaceship can fire right and left to zap deadly meteors... while firing overhead to zap out the letters of an alien language...in the order commanded by the computer!

**TOWERING INFERNO!** You tackle a different fire-filled maze on every floor! Work against the clock, mazes and flames to fly people to safety...if you can!

**COMMANDO RAID!** With one lone gun, defend your city from helicopters, bombers and android parachutists who will land and tunnel under your cities to get you...if they can!

**SNEAK 'N PEEK!** All the fun and thrills of old-fashioned hide 'n seek in a spooky video world. Beat the clock...and the computer or a friend.

## FOR FULL COLOR VERSIONS OF THESE GAMES, SEE YOUR DEALER!

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# Games That Talk and A Computer Named Max

## PARKER BROTHERS

*Electronic Accessory*

**Monopoly Playmaster $65**

From the people who created the most popular game of all time comes the Monopoly Playmaster, an electronic accessory designed to enhance without changing game play. The Playmaster speeds up the game by electronically rolling the dice, auctioning off unowned property and lending money to encourage earlier property development. It also provides musical accompaniment by playing *I've Been Working On The Railroad* when a player lands on a railroad square, the opening bars of Beethoven's *Fifth* when a player has to repay a loan and *Merrily We Roll Along* when a player goes bankrupt.

Two to eight players can wheel and deal in the "new" Monopoly, which arrives nearly 50 years after the original was invented by Charles Darrow in Atlantic City. Lights, sounds and visual effects update this familiar board game.

Parker Brothers, 50 Dunham Road, Beverly, MA 01915

## COMMODORE

*Game Computer*

**MAX Machine $179.95**

Commodore's three-in-one home computer/game machine/music synthesizer offers you 16 colors and 3-D style graphics. Using a new sound interface device, MAX produces three independent voices, each with a nine-octave range. A basic language cartridge enables players to learn programming and write and store their own games and other programs.

The MAX will be sold with an array of arcade-type games, educational and musical programs and easy-to-use peripherals.

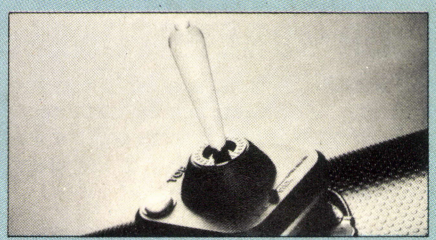
Commodore Business Machines Inc., The Meadows, 487 Devon Park Road, Wayne, PA 19087

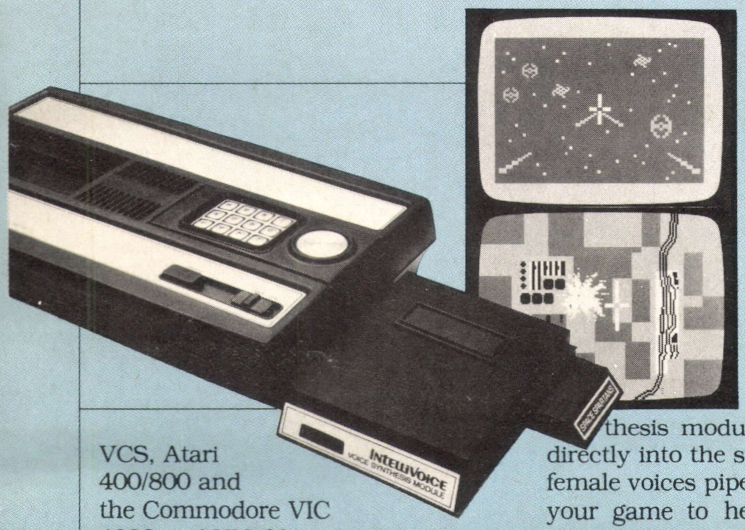
## WICO

*Joystick/***Model 15-9714**

Wico, an established manufacturer of arcade control panels, is offering its first accessories for home video games.

The Command Control Joystick features fire buttons on both the base and top of the Joystick. The extra-long bat handle looks and moves just like an arcade control and features eight-position movement. It comes with a five-inch cord and one-year limited warranty and can be used directly with the Atari






VCS, Atari 400/800 and the Commodore VIC 4032 and VIC-20 computers.
Wico Corporation, 6400 West Gross Point Road, Niles, IL 60648

## SEGA

*Arcade Game*/**Subroc**

From the folks who brought you *Zaxxon*, the first coin-op game with

realistic three-dimensional effects, comes *Subroc*, a natural sequel featuring full stereo sound effects and a unique new 3-D viewing system. *Asteroids* seems tame compared to the planets, sea vessels, and spaceships that come right at you with *Battlezone*-like terror. You can rent one from your local arcade for just 25¢... as long as you survive!
Sega, One Century Plaza, 2029 Century Park East, Suite 2920, Los Angeles, CA 90067

## MATTEL

*Expansion Module*/**Intellivoice**

Intellivision owners have something to shout about—a voice synthesis module which plugs directly into the system. Male and female voices pipe up during your game to help score higher. In *Bomb Squad*, you must disarm a terrorist bomb with the help of verbal Intellivoice clues. *Space Spartans* and *B-17 Bomber* also utilize Intellivoice. All other Intellivision carts may be played with Intellivoice, but will not be enhanced.
Mattel, 5150 Rosecrans Ave., Hawthorne, CA 90250

## ULTRAVISION

*Game Console*/**Ultravision $499**

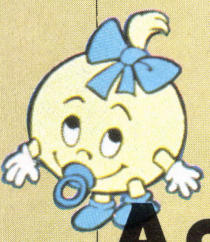
The latest entry into the explosive video games field, Ultravision comes with a nine-inch high-resolution vector-scan black-and-white monitor, 64K ROM, an arcade integrated sound circuit for stereo sound and stereo headphones. It runs on both AC and DC power and has a self-charging battery and two arcade-type joystick controls. Ultravision series I and II games are Atari-compatible and all Atari games can be played on the Ultravision system.

Available in January 1983.
Ultravision, Mall 1-20, Box 19, 2315 N.W. 107th Ave., Miami, FL 33172

## ODYSSEY²

*Voice Module*/**The Voice**

A new expansion module from Odyssey designed to enhance game play by adding voice and sound to cartridges. It has its own speaker and volume control and an unlimited vocabulary, which means that it can audibly reproduce anything typed on the keyboard. Any Odyssey² cartridge may be played on The Voice, but a special line of voice cartridges is available.
Odyssey², NAP Consumer Electronics Corp., PO Box 6950, Knoxville, TN 37914



# A comical catch-all of odds and ends

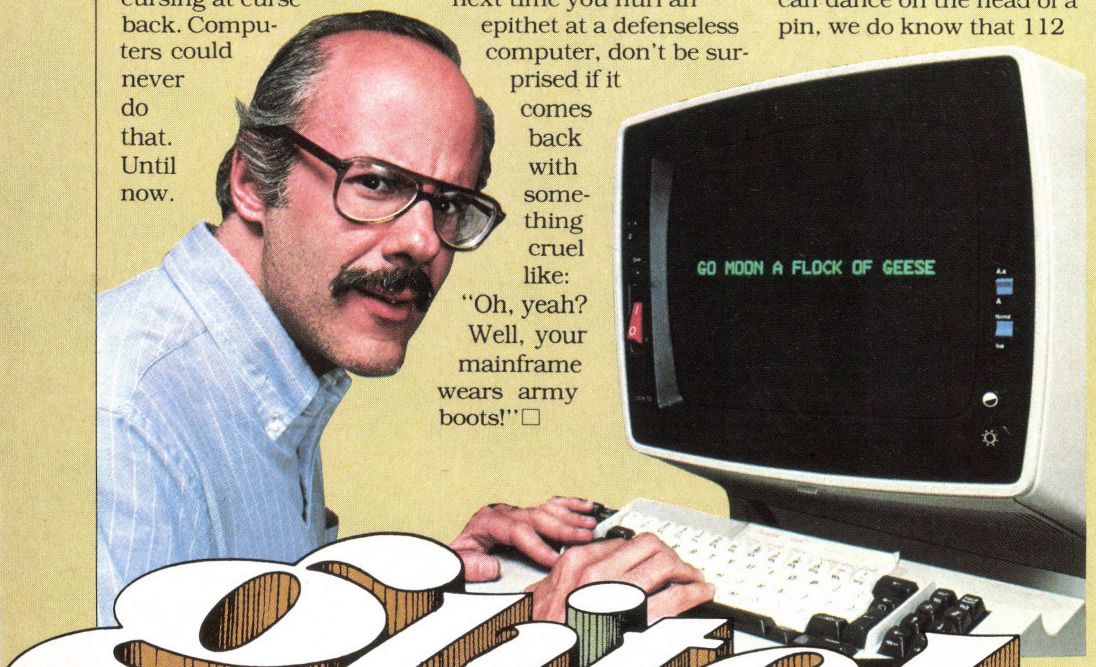
## Type Dirty To Me

Learning to run computers can be frustrating at best. The first time you irretrievably lose a very important, top secret file that you simply can't reconstruct, you feel capable of murder. You want to throw the computer out and you curse a lot. But half the fun of cursing is having whoever you're cursing at curse back. Computers could never do that. Until now.

Randy Simon of Don't Ask Computer Software in LA has given the gift of the expletive deleted to computers with his program Abuse. Abuse, says Simon, is an "interactive insult program" compatible with both the Atari and Apple computers. The computer has "an evil memory chip of its own" and will respond to whatever insult you type into it with one of its own five million stored insults. So next time you hurl an epithet at a defenseless computer, don't be surprised if it comes back with something cruel like: "Oh, yeah? Well, your mainframe wears army boots!"□

## Quest For Tires

Although we still don't know how many Pac-Men can dance on the head of a pin, we do know that 112 Pac-Man look-alikes can dance on the tread of a Firestone steel belted radial 721 Metrix tire. That's the official count from the company. It seems that a tread design engineer at Firestone discovered that 112 different tread element locations on the new tire resemble Pac-Man. Naturally, Firestone decided to take advantage of the current epidemic of Yellow (Dot) Fever and publicize the news. If you're as sick and tired of Pac-Man this and Pac-Man that as we are, you'll take some comfort in the realization that each time you drive your car with these tires, you're running 112 little Pac-Men over. (By the way, if Firestone is really serious about the affiliation, we think they should consider changing their name to A-Tire-i.)□



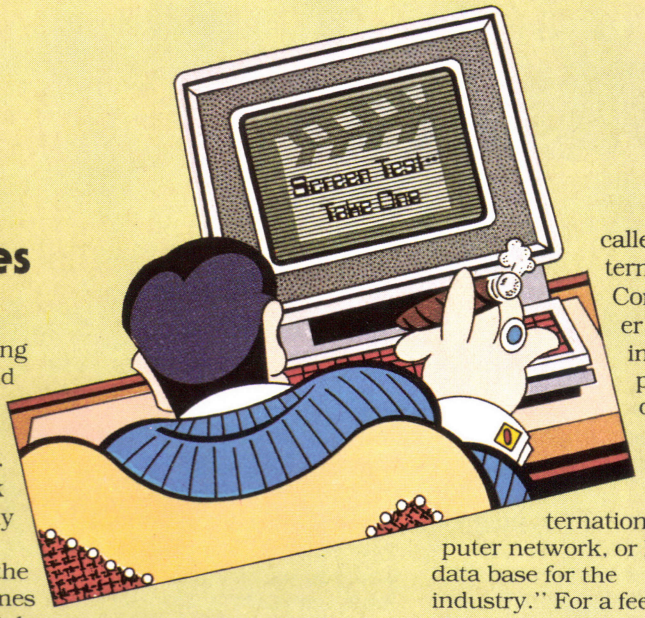

Stitches

## Debbie Does Atari

The days of sneaking around and hiding old Playboys at the bottom of your underwear drawer are over. Now you can sneak around and hide dirty video games.

We can't describe the graphics of these games from American Multiple Systems, but we will tell you they are rather graphic, if you catch our drift. *Bachelor Party* and *Beat 'Em and Eat 'Em* should be big hits, along with *Custer's Revenge*, although we have no idea why General Custer would be in the same desert as Pocahontas, much less the same century.

American Multiple Systems also plans to release VCS versions of *Debbie Does Dallas* and *Talk Dirty To Me*, but they won't be available for a few months. So until you can get your hands on these cartridges, you'll just have to fantasize about them.□

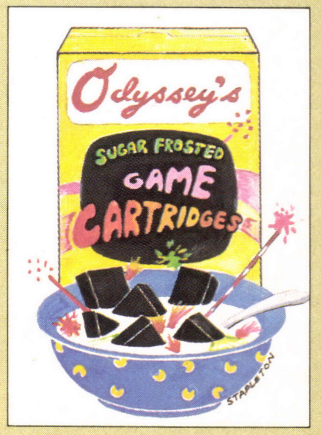



## Battle Of The Network Stars

Recently the *New York Times* printed a story about a Hollywood service that might add a whole new dimension to the term "bit parts." It seems that Tom Papke, a California entrepreneur, is convinced that computers will soon play a much bigger role in show business and so he has formed a new company called International Computer Casting. The purpose of ICC is to "build an international computer network, or kind of data base for the industry." For a fee, the new company will use a computer to catalogue the photographs and resumes of actors, singers, models and so forth. These will go into a central information network and studios that lease computer terminals will be able to call-up high-resolution photographs using telephone hookups. Thus a new line will enter the Hollywood producer's repertoire: "Don't call-up us. We'll call-up you."□

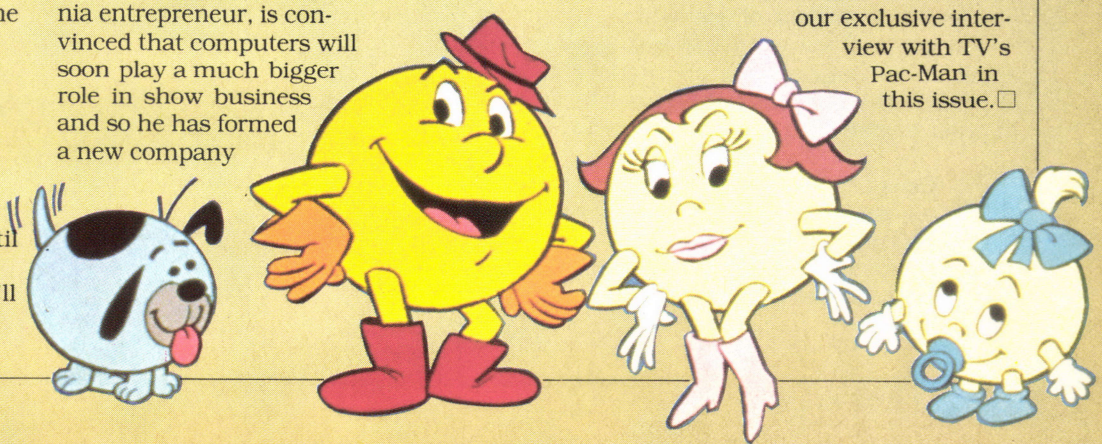
## Food & Games

There's a thin line between comestibles and compatibles these days. You play what you eat and vice versa. A lot of food companies are getting involved with video games either by buying the companies that manufacture them or giving them away inside cereal boxes. First thing we hear, Quaker "Nothing is better for thee than me" Oats buys up U.S. Games. Right after that, Coleco announces that it has a promotion deal with Hostess Twinkies (Will this result in a new game called Sugar Shock?) And finally, Odyssey² has Tony the Tiger pushing its system. Next thing you know, we'll have Atari-compatible oatmeal and voice-enhanced cold cereal. Or, worse still, video games that get soggy in milk.□




## The Thing That Wouldn't Die

Pac-Man don't wear plaid but he does wear a coat in the new Pac-Man cartoon series which made its debut this fall. Look for our exclusive interview with TV's Pac-Man in this issue.□



output input

# Aliens in the back seat

*Why the answer and then the question? Because we here at* EF *think the answer is most important so it comes first. And have we got answers for you!*

*The answer is:* Memory. Whenever you plug in a game, the information contained in the cartridge is temporarily transferred to the system's limited memory bank for as long as the game is being played. If you pull the cartridge out without turning the console off first, the machine's memory retains the information from that cartridge. Thus, when you plug in a new one, the information from that one becomes entangled and confused with the data from the game you were playing earlier. While this doesn't actually result in a literal combination of graphics (for example, aliens in racing cars or asteroids with wings), it *does* jumble up the machine's artificial intelligence, resulting in strange colors and lines and computer garbage. Think of it as being a little bit like electroshock therapy. It results in internal information chaos. By turning the machine off, you are clearing the memory banks so that you can start your next game with a clean slate.

**The instructions that come with all game consoles always warn you against removing or inserting a cartridge without first turning off the machine. Why is that?**

**Pat McDermott**
**California**

*The answer is:* Unfortunately, no. The thrill of victory doesn't come that easily. Unlike a pair of new shoes, joysticks can't be "broken in." So, no matter how often you use the left joystick, it won't result in easier action. And the right joystick will not be any stiffer or harder to manipulate from lack of use either.

However, all joysticks are *not* created equal, so we suggest that you make a habit of periodically switching the joysticks around in order to give each player a fair shake.

**Generally I play video games by myself, so I use the left joystick. My question is—when I play against another person, will the person using that left joystick have an unfair advantage because the left joystick is broken in?**

**Lisa Best**
**Wisconsin**

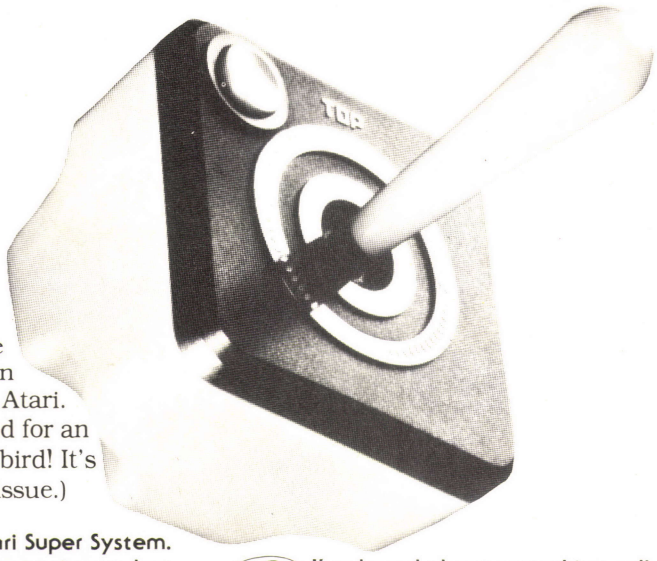
*The answer is:* Absolutely not! You must *never* touch the smooth surface of the inner disc. These discs are magnetic and made of very, very sensitive and fragile mylar. The slightest touch and you can kiss goodbye all those files you've spent hours compiling. Handle them only by the protective outer cover and never leave them on anything hot, in direct sunlight, in places that are dusty or where the dog might be tempted to taste them. And, of course, be sure that food and liquids never come in direct contact with the mylar surface.

**I just bought a computer and I notice that the floppy discs look something like 45 rpm records. Should I carry them the same way I carry my 45s, with my fingers in the center hole and my thumb at the edge?**

**Robert Doyle**
**New York**

*The answer is:* In terms of graphics and game play, yes. The 5200 looks and plays much better than the VCS. But the VCS and games to play on it are *not* being discontinued. Atari plans to release VCS titles as often as it has in the past and companies like Activision, Apollo and Imagic are pouring games out also.

In addition (and this is the best part), Atari is planning to release an expansion module for the 5200 which will allow you to play all your old VCS carts on the new system. Although the module can do



nothing about improving the graphics of the old games, it means that all the money you spent isn't going to go down the tubes. So go ahead. Buy the Super Atari. You won't lose out in the long run. (And for an in-depth report on the 5200, see "It's a bird! It's a plane! It's Super Atari!" later in this issue.)

**I've just heard about the new Atari Super System. I'm tempted to buy it as soon as it comes out, but I've already invested a lot of money in games for my old Atari VCS. Will the 5200 make the VCS obsolete?**

**Bruce Schoengood**
**Texas**

*The answer is:* Actually, Coleco has talked about outfitting ColecoVision with both Atari and Intellivision modules. But according to a company spokesman, there are no plans for an Intellivision expansion module at this time. Coleco explains that, for the present anyway, Atari sells the most consoles and that justifies the expense of putting together an adapter. When Mattel's game surfaces in enough American homes to justify the same expense, then Coleco will consider adding a module that will make ColecoVision Intellivision-compatible as well.

**I think it was very smart for Coleco to make that adapter so you could play Atari cartridges on the ColecoVision system. But *I* have an Intellivision. Why doesn't somebody make a system that plays both Atari *and* Intellivision games on it?**

**Paul Slimak**
**Florida**

*The answer is:* Yes, there is such a thing as PlayCable and yes, you do need to own a video game console in order to play the games. PlayCable is a 24-hour, all-game channel available to cable subscribers all over North America at a monthly fee that is less than the price of a cartridge.

To play the games offered, users must own an Intellivision system which is hooked up to the TV by a special adapter that comes with the subscription. The service offers users 15 Intellivision games per month—a combination of new games, returning games and standing favorites. Current offerings include *Astrosmash, Star Strike, Football, Basketball* and *Golf.* Games planned for future introduction include *Advanced Dungeons & Dragons, Night Stalker* and *Frog Bog.* For future information, contact: The PlayCable Company, 1775 Broadway, New York, NY 10019 (212) 974-8900.

**I've heard about something called PlayCable. If I am a cable subscriber, can I get it? And do I need to own a game console in order to play the games?**

**John Dee**
**Illinois**

The answer is: Yes. *Airlock* by Data Age (for the Atari VCS) is at least one game we know of which can be beaten. In *Airlock*, you're trapped in a submarine which has either five or 10 levels (depending on the variation). You've got to leap over maverick torpedoes to get to the elevators which will transport you up and away from the waters that threaten to fill the ship and drown you.

If you successfully reach the top level, the screen automatically switches to an outside view and you see your incarnation, a lone sailor, jumping for joy on the top of the sub, with the endless sea all around. The dark cloud behind this silver lining is that there is not a rescue ship in sight. Oh well . . .

*Planet Patrol* by Spectravision (also for the Atari VCS) is another game that allows you to feel something of a sense of victory. Unlike other games, the score does not roll over when you reach 999,999 points. The game simply ends. That's a win of sorts.

In addition, four new games by Atari for the VCS not only permit you to win the game but to win big bucks, too. The *Swordquest* adventure game series—*EarthWorld, FireWorld, AirWorld* and *WaterWorld*, all have clues which, if found and followed, lead you, the player, to a prize that is worth $25,000. *That*'s what we call winning.

**I play video games like a true fanatic and no matter how well I do I ultimately lose to the computer. Are there any video games that I can win?**

**Clifford Berken**
**New York**

*With a sixth sense that is not to be believed, we have already divined all the answers. All we need now are questions. Do you have a question about video games or computers that matches one of our answers? If you do, send it to: Output/Input,* Electronic Fun, *350 E. 81st., New York, NY 10028.*

# RICK COLBY THOUGHT HE WAS HOT STUFF.

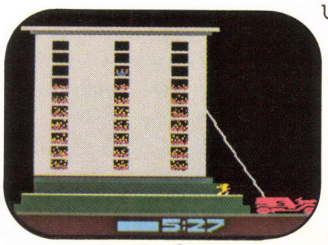
Too bad about Rick.

He was sure he could beat almost any game made for his Atari® Video Computer System™.

Then he played Imagic's Fire Fighter.™

Rick knew he was in trouble the second he leaped off the fire truck and began hosing down the flaming warehouse.

As the fire leaped from floor to floor, and the panicked victim climbed higher and higher, Rick tried desperately to reach the top floor with his ladder.




For Atari® VCS.

But it was just too late. The warehouse was turned into a burnt-out shell.

And so was Rick.

Please don't let this happen to you. Fire Fighter and all of Imagic's video games are created by experts for experts. Do not play this video game if you are a weasily, weak, uncoordinated nerd.

Unless you want to wind up like Rick.

IMAGIC

**Created by experts for experts.**

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# E.F.G. Times

VOLUME ONE, NUMBER ONE NOVEMBER 1982

## VIDEO GAMES—ARE THEY KILLING ROCK AND ROLL?

NEW YORK—According to *The New York Times*, the huge popularity of rock music may be over, and one of the main reasons is video gaming.

Last year saw 55 million fewer records sold than the previous year, and the summer was one of the industry's worst ever. According to rock promoter John Scher, only four of the 14 concerts at New Jersey's Asbury Park Convention Hall made money this year and "the only groups that can fill a Giants Stadium now are a small handful of very, very big acts—the Rolling Stones, the Who, and Bruce Springsteen."

In addition to home taping, video games are seen as a major villain in the story. The six billion dollar video game industry has grown up in the middle of rock's hard times. As Scher told the *Times*, "I go down to the Asbury Park boardwalk now and see all these kids putting $5 or $10 worth of quarters into a video game." Mr. Scher feels that a couple of years ago, those kids would have spent that money on records or concerts.

Most video gamers love rock and roll and hate to see it suffer. Hopefully, we are not so devoted to video gaming that we overlook all other aspects of contemporary culture.

*Tough choice*—Sympathy For The Devil *or* Demon Attack?

## Atari To Give Away $150 G

SUNNYVALE—Winning isn't everything—cashing in is. And the people who solve Atari's new Swordquest adventure series will cash in big. The first game in the series, *EarthWorld*, will be released this month and the first person to solve the puzzle will be awarded a $25,000 prize. In 1983, *FireWorld* and *AirWorld* come out, also with $25,000 to go to the skillful players who solve them. *WaterWorld* completes the series in 1984. Finally, the player who puts together clues from all four games to solve "the final puzzle" will win $50,000.

No other details are available on the Swordquest contest at this time. But if you think you're pretty good at adventure games, get in line for these new cartridges. Atari warns—these games may take months to figure out.

*Look familiar?*

## Corn-Man?

There's a thin line between breakfast cereals and video games. First Quaker Oats buys U.S. Games, then we find out that Pac-Man (or a reasonable facsimile thereof) is owned by Cornnuts Inc. of Oakland, California.

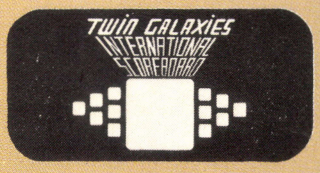
The story is this: Since 1965, Cornnuts has had a trademark that's very similar to Pac-Man. And what Atari has done to the home video game industry (i.e. sued the pants off anything round, yellow and hungry), Cornnuts is threatening to do to the food industry.

Maurice Holloway, president of Cornnuts, says he likes Pac-Man as much as anybody, "but if we find so much as one tall corn stalk with electronic teeth marks in it, we're going to take it very seriously."

We think Cornnuts doesn't realize the gold mine it has. As exclusive owners of a Pac-like logo, there are a million ways they can license it out . . . There's the tabletop version, the coffee table rights, the eat-at-home version, arcade concession license, and if worse comes to worst, they can always turn it into a video game.

## Are You A Video Jock?

IOWA—Are you the Leader of the Pac? Why not find out for sure by calling the Twin Galaxies International Scoreboard? Twin Galaxies was conceived by Walter Day and is dedicated to the proposition that all game players are not equal. In order to prove this, Mr. Day is erecting the world's largest scoreboard, an 18-foot structure that will be made up of one huge screen and 12 smaller TV screens. The TVs will retrieve data from a computer on which arcade and home games scores from across the nation will be stored. These scores will be displayed in three different ways: (1) the highest scores achieved in every game, (2) the ranking of individual players and (3) the ranking of individual arcades based on the number of high-scoring players who play there.




*Scoreboard prototype*

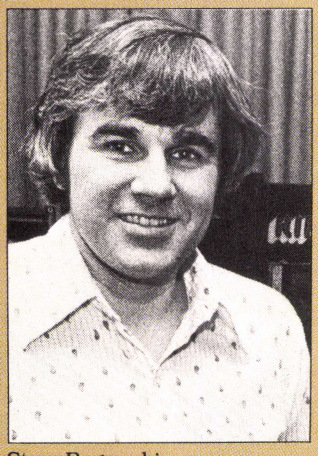
Players are invited to call (515) 684-6421 to get up-to-the minute information on scores which, according to Mr. Day, are liable to change hourly.

If you'd like your name in lights, send your top ten scores from ten different games to: *Twin Galaxies International Scoreboard, 226 East Main Street, Ottumwa, Iowa 52501.* (Be sure to include a stamped, self-addressed envelope.) If you're entering arcade games, you must send a letter that has been signed by both the arcade owner and a witness. If you're entering the home games division, the letter must be accompanied by photographs taken from the screen.

E. F. G. Times

## Quote Of The Month . . .

"All you have to do is watch a kid in an arcade run out of money. He really goes into glucose shock. He runs around. He tries to borrow a quarter from somewhere. He just has to have that next fix."



Steve Rogowski
Computer consultant, State University at Albany

## VG-Hyperspace Into Hollywood

NEW YORK—If you thought you were safe from video games in the privacy of a movie theater, think again. Half of all movie theater "commercials" this year have been bought up by the video game companies. That represents 3,500 screens, 25% of the U.S. total. Commercials for *Chopper Command, Star Master, TRON* and *Dig Dug* have already hit the silver screen with more to come. The first arcade game to be advertised on television was *Zaxxon*, which was aired throughout July.

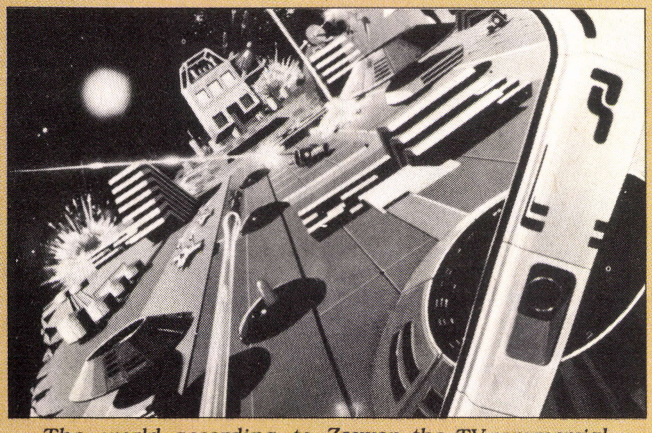
## Do You Have Computer Phobia?

TEXAS—It's no secret that as computer prices come down, people will start to buy them instead of video game systems. So in order to stay ahead of the Pac, you might want to learn about computers *now*. A good way to do that is to join The Young People's LOGO Association, a club formed to teach the techniques, intricacies and languages of computers. Membership is free to young people and you can write to YPLA at: *1208 Hillsdale Drive, Richardson, TX 75081*. Or phone (214) 783-7548.

There is also an excellent new book out, *Crash Course In Microcomputers*, by Louis E. Frenzel Jr. It costs $19.95 and is available from *Howard Sams and Co., 4300 W. 62nd St., Indianapolis, IN 46268*. Pleasant programming!

## Vid-Triv

• What does *Donkey Kong* have to do with donkeys? No, it's not that "donkey" means "crazy" in Japanese. The Japanese named the game *Monkey Kong*, but when it came to these shores, somebody mistook the M for a D. Watch for Donkey Kong Jr.



*The world according to Zaxxon, the TV commercial.*

## THE TOP TEN

| HOME | ARCADE |
|---|---|
| 1. DONKEY KONG (Coleco) | 1. TRON (Midway) |
| 2. DEFENDER (Atari) | 2. MS. PAC-MAN (Midway) |
| 3. CHOPPER COMMAND (Activision) | 3. ZAXXON (Gremlin) |
| 4. STARMASTER (Activision) | 4. TURBO (Gremlin) |
| 5. EMPIRE STRIKES BACK (Parker) | 5. KANGAROO (Atari) |
| 6. YAR'S REVENGE (Atari) | 6. ROBOTRON (Williams) |
| 7. SUPER BREAKOUT (Atari) | 7. DIG DUG (Atari) |
| 8. PAC-MAN (Atari) | 8. GALAGA (Midway) |
| 9. SPACE HAWK (Intellivision) | 9. PAC-MAN (Midway) |
| 10. BARN-STORMING (Activision) | 10. DONKEY KONG (Nintendo) |

*The Top Ten is based on numbers, not opinions. The Top Ten has been compiled by contacting retailers and arcade owners throughout the country.*

• Finally, the name of the guy who gave us Pac-Man:Toro Iwatani, who works for Namco in Tokyo. While American designers make millions, Iwatani, according to *Newsweek*, never even got a bonus for his effort. But don't feel bad—he has been promoted to manager of Namco's planning and development section.

• The little boy character in *Robotron 2084* is named Mikey. Designer Eugene Jarvis was inspired by the famous television commercial—"Give it to Mikey, he eats anything."

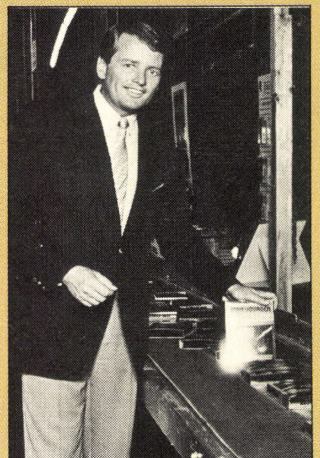
## The Zowie Effect

Do you know what the Zowie Effect is? Here's how you see it—In *Stargate*, kill all the landers but one. After he nabs one of your humanoids, shoot him and catch your humanoid just as his feet hit the ground. Suddenly, the screen will go blank, then you'll see brilliant colors and get a 2,000-point bonus. That's the Zowie Effect.

We got this and a whole load of other information from the first video game scrapbook, *Defending The Galaxy*. *DG* is a very funny, informative book, not just a bunch of tips to beat the games. If you can't find it in your local bookstore, send $5.95 to: *Triad Publishing, P.O. Box 13096, Gainesville, FL 32604.*

## Imagic Ships Millionth Cart

SANTA CLARA—Can games go platinum? It looks that way. Just two months after beginning its first delivery, Imagic has shipped its one-millionth cartridge. That's William Grubb, president of Imagic, grabbing the milestone *Star Voyager* off the assembly line. Other Imagic games—*Atlantis, Cosmic Arts, Trick Shot, Swords & Serpents, Fire Fighter.*

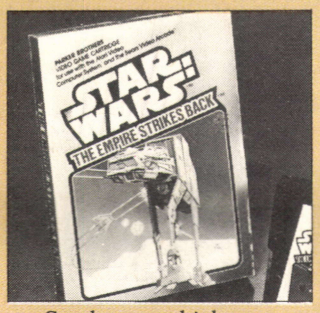


*The 1,000,000th game*

# E.F.G. Times

## Monthly Contest!

Each month we will pick a home video game and award a free cartridge to the reader who achieves the highest score. To enter, send a clear photo of your score on a TV screen. The highest score we receive by




*Send us your high score.*

November 10, 1982 will be the winner, and he or she will receive the cart of their choice. This month . . . *THE EMPIRE STRIKES BACK.* Send entries to: *November Contest, Electronic Fun, 350 E. 81st St., New York, NY 10028.*

## Joystick Flash

Atari joystick broken? Maybe you don't have to spring for a new one. Usually the part that breaks is a plastic insert that you can replace yourself in five minutes. To get two inserts and more info, send a money order for $7.95 to: *Fix-A-Stick, Roetin Industries, Box 207, Holcomb, NY 14469.*

## Intellivision And Odyssey Slug It Out

KNOXVILLE—It is the general opinion that Mattel's *Major League Baseball* and *NFL Football* are the best sports games going . . . but not if Odyssey has anything to say about it. Judge George N. Leighton of U.S. District Court in Illinois has found that Mattel's games of football, baseball, tennis, hockey, basketball and soccer all infringe U.S. Patent Re 28,507, which has been owned by Odyssey since 1977.

Will George Plimpton become a free agent? Not yet—Mattel has won a stay of the injunction. We'll keep you posted.

## Odyssey Three in '83

KNOXVILLE—Odyssey is presently trumpeting the virtues of *Pick Axe Pete*, but late next year they will unveil the third version of the first home video game system ever—Odyssey³. According to a company spokesman, the new system will have a full "tactile feel" keyboard, improved graphics and a built-in voice attachment.

Most importantly, Odyssey owners need not worry about their present carts becoming obsolete. Odyssey³ will have an expansion module (sold separately) to play Odyssey² games. So Misty Mountain Mine and Pick Axe Pete can keep picking indefinitely.

*New carts for Intellivision*

## Intellivision Owners

Up until now, Mattel has been your only source for games. In November, Activision will ship its first Intellivision cartridge (*Pitfall*), and Coleco will soon release *Donkey Kong, Venture, Mouse Trap, Rip Cord, Cosmic Avenger, Lady Bug, Carnival, Zaxxon, Turbo* and *Smurf.* Also, Imagic's popular *Demon Attack* is now available in the Intellivison format.

*Craig Hundley creating Data Age's* "Mindscape."

## Free Record From Data Age

CALIFORNIA—Making its splash in the video game pool, Data Age is giving out a record that takes you, TRON-like, inside their video games. The record has been created by Craig Hundley, who wrote the electronic music for *Star Trek II, The Black Hole, Firefox* and *Megaforce.* Hundley also has made audio effects for Bruce Springsteen and John Lennon.

Combining weird sounds and outrageous voices, "Mindscape" attempts to give the feel of Data Age's new games, *Airlock, Warplock, Encounter at L-5, SSSnake* and *Bugs.* We heard it and strongly advise you not to listen to it at home at night when you're all alone.

## Used Video Games Sale

Are you tired of paying $30 for a game cartridge? Are you tired of all those games sitting on your shelf? Well, now you can dump those old games, pick up some others and save a bundle on the deal. Forest Hills Video Games, a new company, will pay you hard cash for your used games and sell you somebody else's used games for either $5.95 or $18.95, tops.

Bob Schwartz, the owner, has hundreds of games for sale. You can pick up *Home Run, Canyon Bomber, Flag Capture* and *Fishing Derby* for $5.95 and *Pac-Man, Defender, Demon Attack* and many others for $18.95.

Write to Bob at: Forest Hills VG Carts, 63-56 108th St., Forest Hills, N.Y. 11375.

## Be President!

The most intriguing game to come from Mattel in a while is *Utopia.* You are president of a country and you have to feed, house and educate your citizens while storms, hurricanes and pirates threaten your existence.

## Throw A VG Tournament

Who owns the bragging rights in your neighborhood? There's only one sure way to find out—hold a tournament. Video Masters sells a kit that includes registration forms, scorecards, award certificates and a complete instruction manual on how you should run your contest. It's just $6.95 and you write to them at: *57 Providence Ave. Box 141, Doylestown, PA 18901.*

Have you got an item for the EFG Times? News events, game tips, photos and other information are gladly accepted. Send material to: *. EF, 350 E. 81st St. New York, NY 10028.* Include SASE.

# This is COLECOVISION™

# The Arcade Quality Video Game System

### The Most Advanced Video Game System You Can Buy

ColecoVision was designed for what you had in mind–a great game system that's expandable into a great computer system.

### Arcade Quality Graphics

ColecoVision graphics have the superior resolution and brilliant color of real arcade games. And this new advanced level of quality holds true for every part of the system.

### Plays The Best

ColecoVision has arcade quality controls–joystick, fire and jump buttons that make it easy to play. And ColecoVision offers a library of your favorite arcade games like Donkey Kong™ (which comes as a bonus with ColecoVision), Turbo™, Zaxxon™ and Cosmic Avenger™. Sports and educational games, too. Even ColecoVision's exclusive new Smurf™ game based on the #1 TV cartoon series.

### Plays The Most

ColecoVision plays more games than any other system, because ColecoVision is an *expandable* system. By using ColecoVision's first expansion module you'll be able to play all of the Atari® VCS™ compatible cartridges.

COLECOVISION EXPANSION MODULE #1 ALLOWS YOU TO PLAY ALL ATARI® VCS™ COMPATIBLE CARTRIDGES. AVAILABLE IN NOVEMBER.

### An Expandable Computer

When you buy ColecoVision, you've already bought a sophisticated *computer* ready to accept expansion modules of all kinds. And in 1983, you'll be able to "activate" ColecoVision's amazing memory by simply plugging in a keyboard, a printer and other computer accessories. This expansion feature is your assurance that your ColecoVision will always keep pace with "state of the art" developments in electronics.

**ColecoVision–a great game system that's expandable into a great computer system. The most advanced video game system you can buy.**

## YOUR VISION IS OUR VISION COLECOVISION™

© Coleco Industries 1982
945 Asylum Avenue,
Hartford, CT 06105

Dad,
This is the system we've both been waiting for. ColecoVision has everything! It plays the best arcade games – It looks and plays just like the real arcade. And it plays the most arcade games. It's got a plug-in attachment that will allow us to play all of Atari's VCS games!

Bill

P.S. And look at this, Dad, ColecoVision is also a computer! And that's important – because, you know, I don't want to just play games. Could we go to the store and take a look?

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Zaxxon™ and Sega® are trademarks of Sega Enterprises, Inc. ©1982 Sega Enterprises, Inc.
Cosmic Avenger™ is the trademark of Universal Co., LTD., ©1981 Universal Co., LTD.
Donkey Kong™ is the trademark of Nintendo of America, Inc. ©1981 Nintendo of America, Inc.

From the silver screen to your TV screen...

# Games go HOLLYWOOD

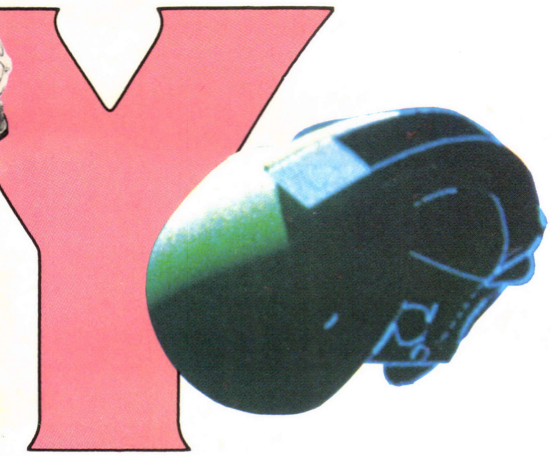
*Once upon a time, excellence in books, comic strips, radio shows and other forms of American popular culture would be recognized by adaptation into a motion picture. The stakes were enormous, considering that the average movie audience throughout the Thirties and Forties topped the one-hundred-million-per-week mark. Being immortalized on celluloid helped gain widespread acceptance for almost any property or character.*

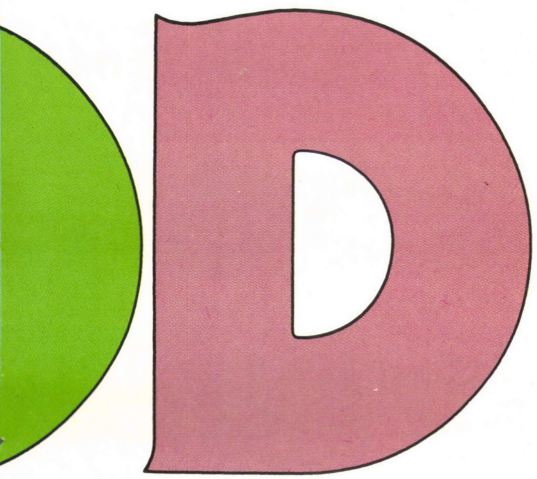
*Times have changed and it looks as though the hottest new translation medium is the video game. Motion pictures were once considered the most prominent extension of our pop cultures.*

**By Ed Hulse**

Hollywood movies are now being spun off into game formats with astonishing regularity.

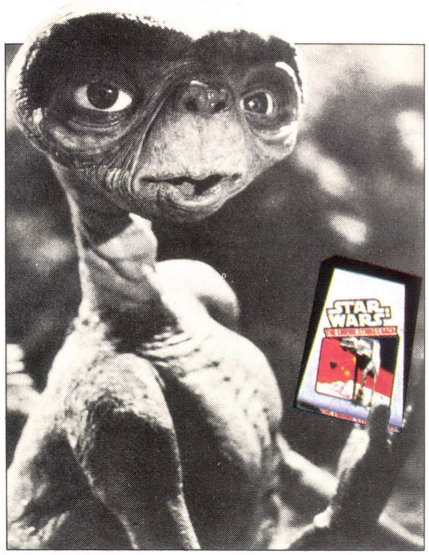
It was, come to think of it, virtually inevitable. Most games for the home market were initially adaptations of larger-sized arcade coin-ops, and in the beginning that seemed to satisfy even the most rabid fan. Within the last year, however, the demand for new product has forced games manufacturers to glean concepts from other





media, with television shows and motion pictures offering the most promising candidates.

Moviegoer demographics have shifted, too. The average patron is younger than he or she used to be, as the over-30's seem content to stay at home watching commercial and cable TV for the bulk of their entertainment. It's only logical, then, that the leisure-time activities of the younger set reflect their tastes. And with much of the movie



audience falling into the same basic age category as that of video games players, it should come as no surprise that large-screen faves are appearing with increasing frequency in video gamefields.

Perhaps the greatest coup of all was Atari's recent acquisition of the exclusive, worldwide video game rights to your favorite extra-terrestrial botanist and mine, E.T. Director Steven Spielberg, who is himself an avid video game enthusiast, will be working with Atari to develop the game for both the home and coin-op formats. Ray Kassar, chairman and chief executive officer of Atari, says everyone is very "enthusiastic over the prospect of working with Spielberg to bring the magic of *E.T.* to the dynamic medium of video games." E.T. should be "right here" in time for Christmas.

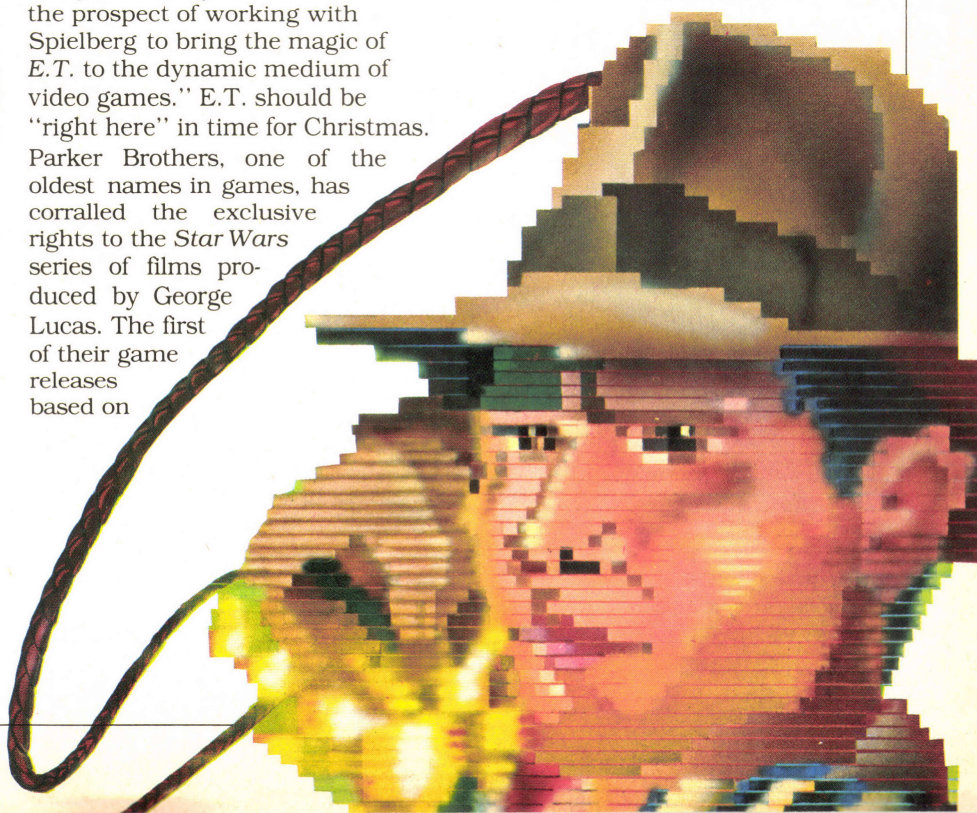
Parker Brothers, one of the oldest names in games, has corralled the exclusive rights to the *Star Wars* series of films produced by George Lucas. The first of their game releases based on the adventures of Luke Skywalker and Co., is *The Empire Strikes Back*, a cartridge which, according to PB spokesperson Carol City, is "doing fabulously well—and justifiably so: it's a terrific cartridge." Drawing on one of the movie's best sequences, the *Empire* game allows the player to control one of the flying "snowspeeders" and attempt to blast the huge "Imperial walkers" moving across the playfield terrain.

Parker Brothers has already stated that the *Star Wars* acquisitions have proven to be exceptionally strong licenses; *Empire* is expected to gross $30 million within the first year of its release. The next game will be adapted from the first movie, *Star Wars*, and the third, *Revenge of the Jedi*, will be released simultaneously with the movie of that title next May.

## Towering Inferno

Atari will also be introducing their own version of *Raiders of the Lost Ark*, last year's top-grossing blockbuster. And you'll be seeing games featuring titles and characters from past as well as present successes. One of these, U.S. Games' version of *The Towering Inferno*, may well be the original movie-to-game adaptation, and has an interesting history.

"We like to think that we

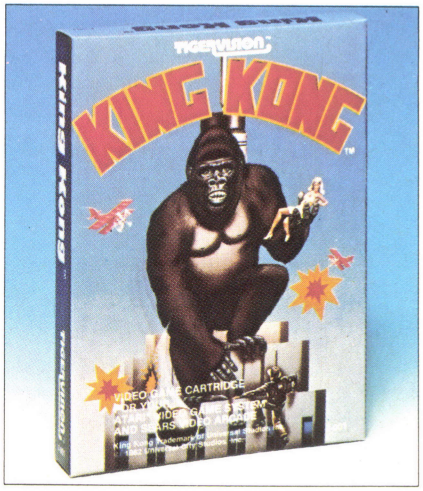


**Tigervision snapped up the rights to this classic "Joe Hero" film.**

pioneered the notion of springing off movies to video games," says Vectrex president Lee Chaden. "Over a year ago, when we were entertaining the notion of manufacturing cartridges for the Atari system, we were looking for a unique market approach. You have to remember, by the way, that most of the available games then were small-screen spin-offs from arcade successes.

"Anyhow, we finally hit on the idea of using titles of movies which would have to be licensed from the major studios. We did some research, got a list of the 50 top-grossing films, and went looking."

The first title Vectrex optioned was Fox's *The Towering Inferno*, which was an enormous box office success and a TV late-show favorite. Chaden's group did some developmental work on the project but when they abandoned the Atari format for their own, the property went to U.S. Games, where it was refined and just recently released. The game has for its premise a situation similar to the movie's main event: The player, travelling through a maze representing a burning skyscraper, must rescue people trapped in the building. U.S. games spokesman Ron Evans is excited about the release. "You can bet we'll be monitoring *Inferno* real closely," he says. "We're interested in pursuing other movie titles as possible game prospects and we're anxious to see how this one does."

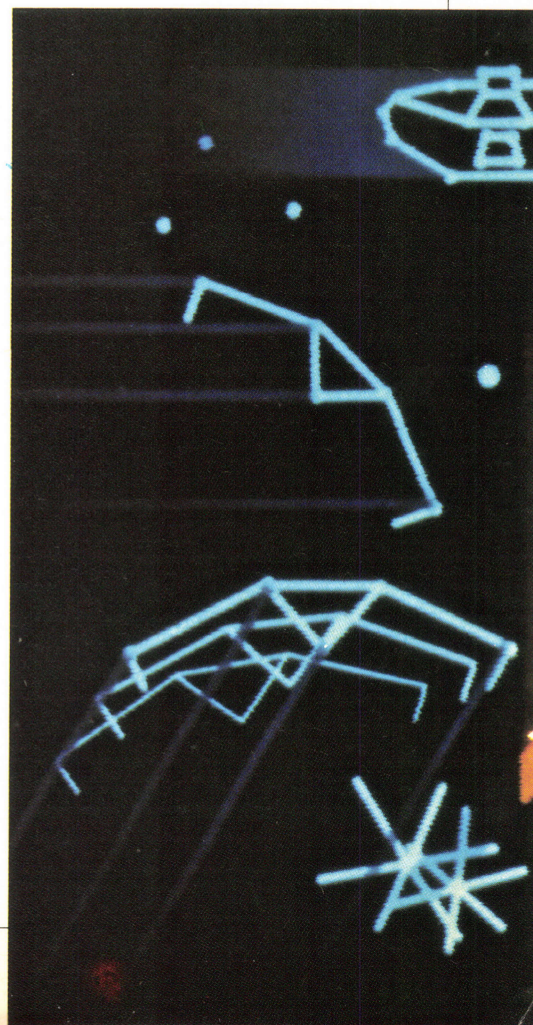



As for Vectrex, they optioned *Star Trek* for translation to the game medium—and not only do they get the property's current value as a top box office attraction, there's the added bonus of years of TV syndication and built-in appeal. "It was a good choice," admits Chaden. "We've just shipped *Star Trek: The Motion Picture*, and response so far has been very encouraging."

And why not? It's a situation that should tickle the fancy of everyone from the devoted Trekkie to the most jaded video game junkie. You're placed on the bridge of the U.S.S. Enterprise, travelling through space and battling Klingons and Romulans. Unlike the original *Trek* adventures, though, yours might end in disaster. While Captain Kirk managed to pull the Enterprise relatively unscathed from his weekly imbroglios, you as game player are subject to pulling a boner which might result in the ship's vaporization.

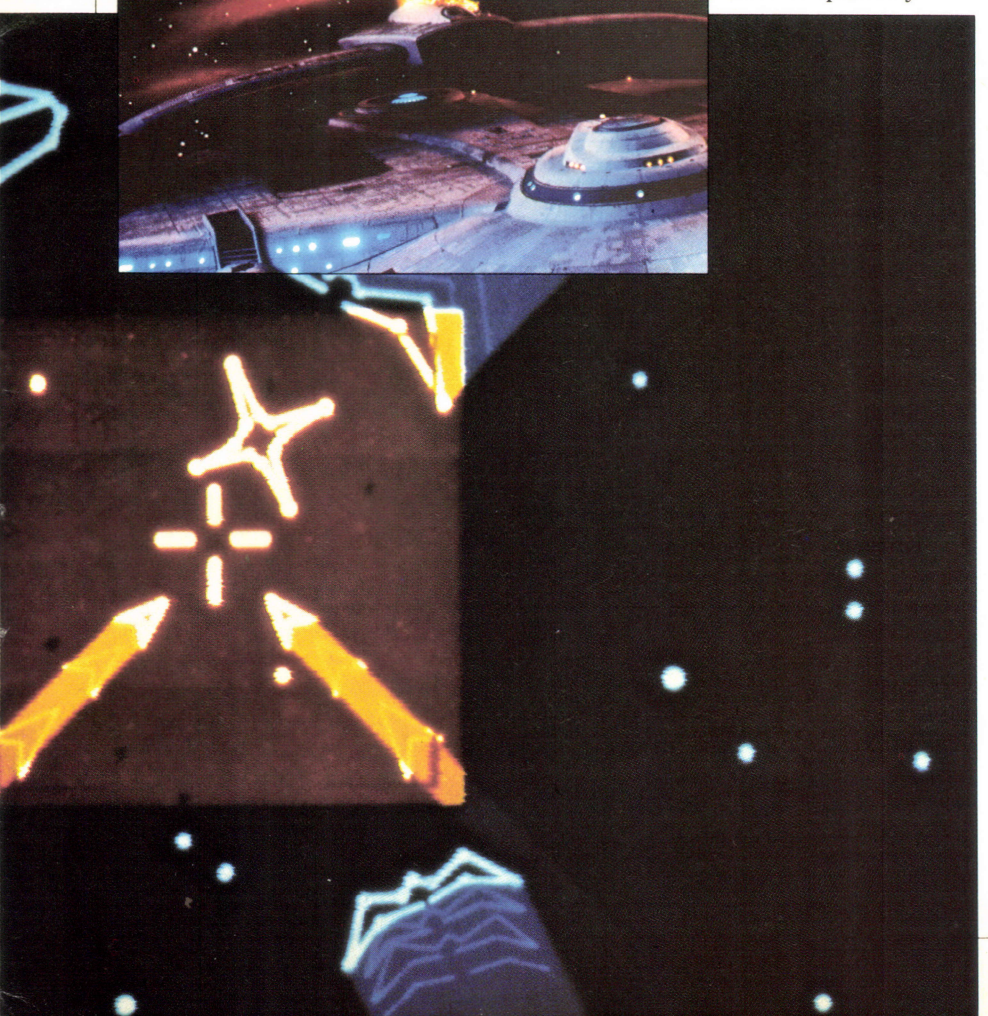
## Kong and Conan

Those players unwilling to assume such responsibilities might find the Tigervision adaptation of *King Kong* less intimidating. Based on the 1933 movie classic starring Fay Wray and Bruce Cabot, the *Kong* game draws on the film's



**At right, a scene from STAR TREK: THE MOTION PICTURE and STAR TREK, the video game by Vectrex. While Captain Kirk always managed to escape from any predicament, in the STAR TREK game, the Enterprise can easily be vaporized.**

**You're on the Enterprise travelling through space and battling Romulans.**

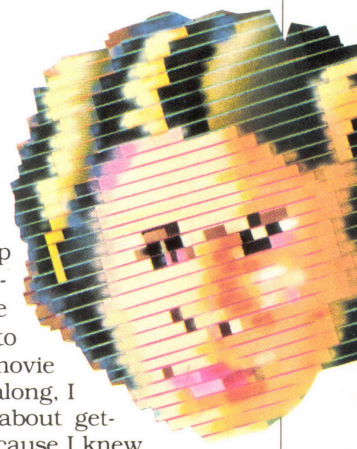


powerful imagery for its appeal: the giant ape atop the Empire State Building battling with the machine-gunning biplanes.

William Pasco, Tiger's marketing vice president, recalls: "We contacted Universal about buying the rights to *Kong* last year. It seemed to be a perfect selection, a very recognizable story—the gorilla capturing the girl, the 'Joe Hero' type coming to rescue her—that we felt could be adapted successfully to a video game format." Pasco seems satisfied with the new game's reception. "We got our first fan letter for it just a few days ago." he says. "That's a good feeling; we hope more people will feel the same way."

How do the game manufacturers develop video games from movies? Well, it can be a long and complex process, as game creator/engineer Dave Armstrong can testify. He's been involved from the very beginning with the game based on Universal's *Conan the Barbarian* movie developed by Dave Nutting Associates for Astrocade.

"Originally," Armstrong reports, "I had started to work on a sword-and-sorcery video game called *Quest for the Orb*. I'd always been a fan of the genre and I'd followed the *Conan* comic books, which were inspired by



Robert E. Howard's pulp magazine stories. When the opportunity to pick up the movie rights came along, I was excited about getting them because I knew the game could easily be revamped to incorporate Conan."

The *Conan* game, recently released, carries the *Quest for the Orb* as a subtitle. It involves full use of the Astrocade hand control, controlling a battling hero who moves around the playfield in a wizard's dungeon, destroying various monsters. The monsters reappear later in different forms, offering a wide variety of creatures for the player to destroy.

In developing the game, Armstrong had access to the movie script, which gave him some advance idea of the concepts to be employed. Then, attending a preview of the finished film in New York, he was able to see how those concepts had been realized by the filmmakers and get a handle on the main concentration of visual action and effects. He hopes his efforts have borne fruit in the *Conan* game.

## Where Do I Begin?

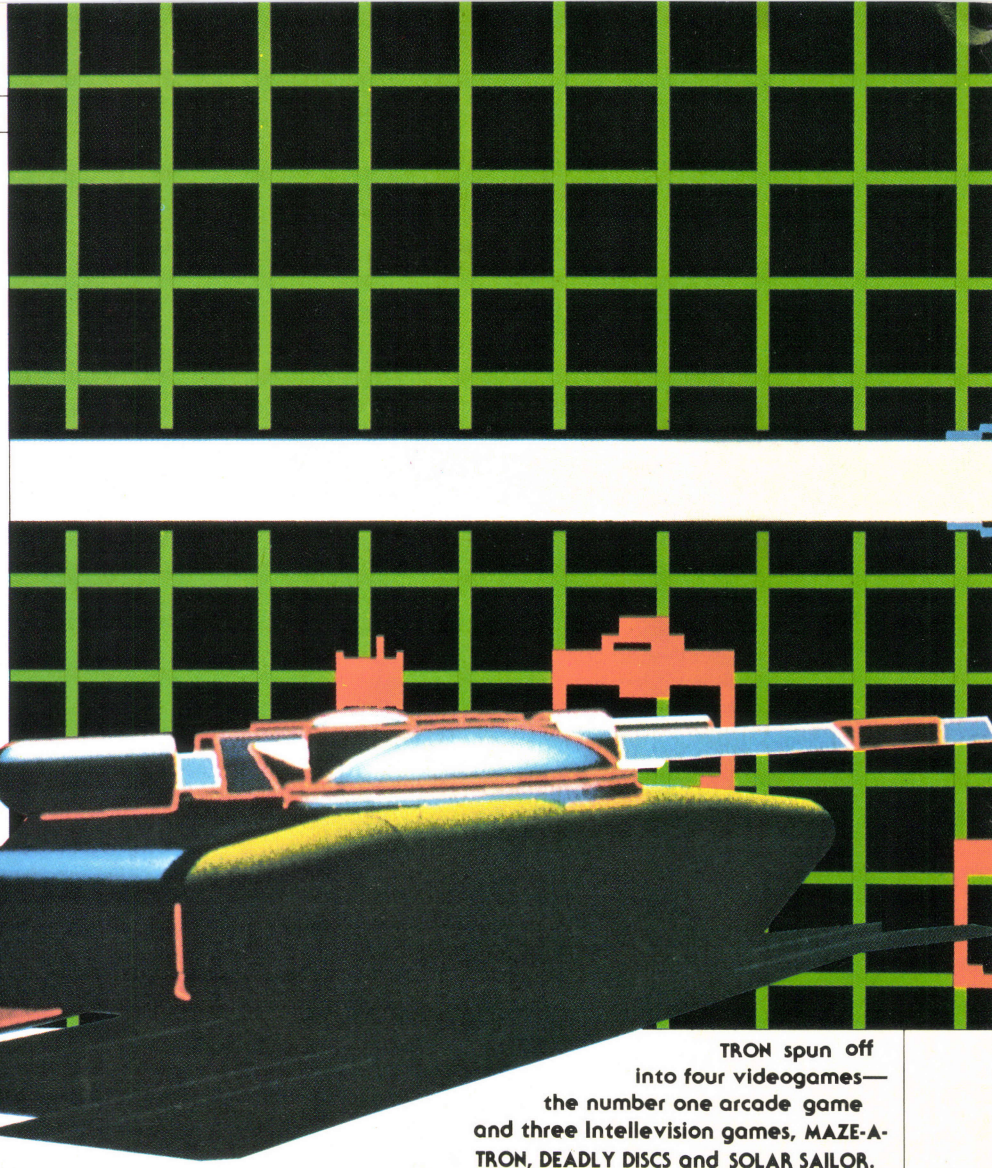
Most of us, given the responsibility of developing a successful game based on a movie, would probably spend many long hours sitting at a drawing board scratching our heads and wondering: Where do I begin? Armstrong explains the principle involved:

"The thing to remember about video games is that they're really what you could call 'interactive movies.' In a film, for example, a script is written which will describe a certain instance and it's the job of the actors and production crew to see that that instance is effectively translated to the screen and presented in one way to the audience.

"In a video game, though, you're naturally going to want to present a

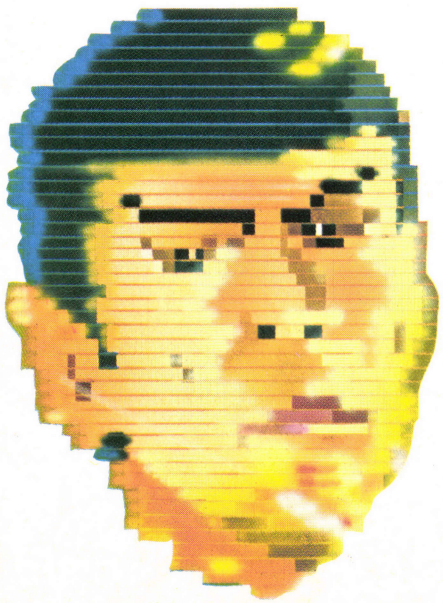
situation with many variations, because any player would get pretty tired of recreating the same instance every time he plays. So you have to program different variations in the basic situation to keep the game consistently interesting." In the case of *Conan the Barbarian*, Armstrong has been overseeing not only the variations on the playfield, but the specific software, graphics, and sound effects as well. He believes Astrocade will have itself a very popular game.

In addition to having video games based on recognizable film favorites, there's always the chance you're going to find one which only *seems* to be based on a real movie. Take, for example. Spectravision's *China Syndrome*. Now, just from the title, you'd think that such a game might have been adapted from the hit movie starring Jane Fonda and Jack Lemmon, wouldn't you? Not so, according to Spectravision spokesman Murvyn Fong.



**TRON spun off into four videogames—the number one arcade game and three Intellevision games, MAZE-A-TRON, DEADLY DISCS and SOLAR SAILOR.**

**STAR TREK is the first video game to be based, indirectly, on a television show.**

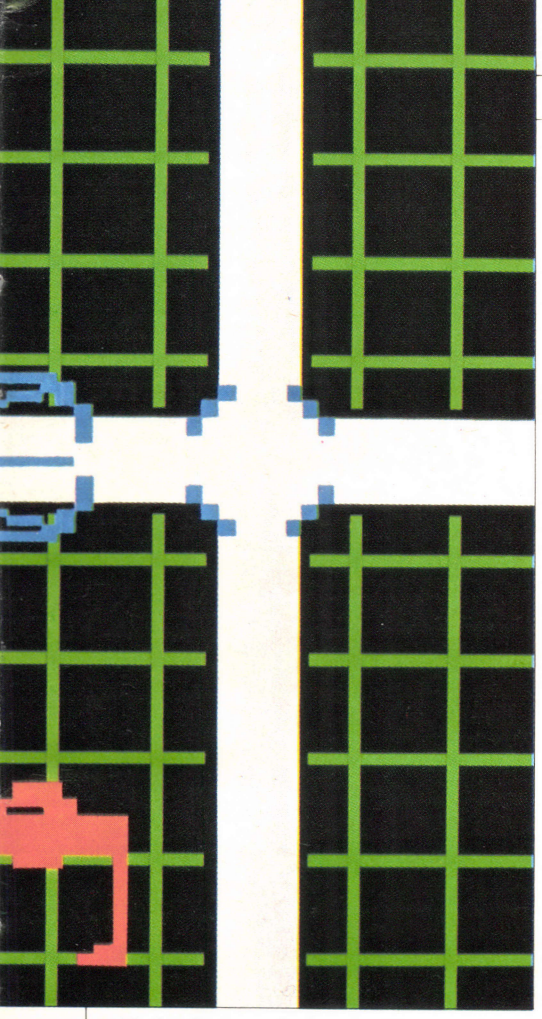


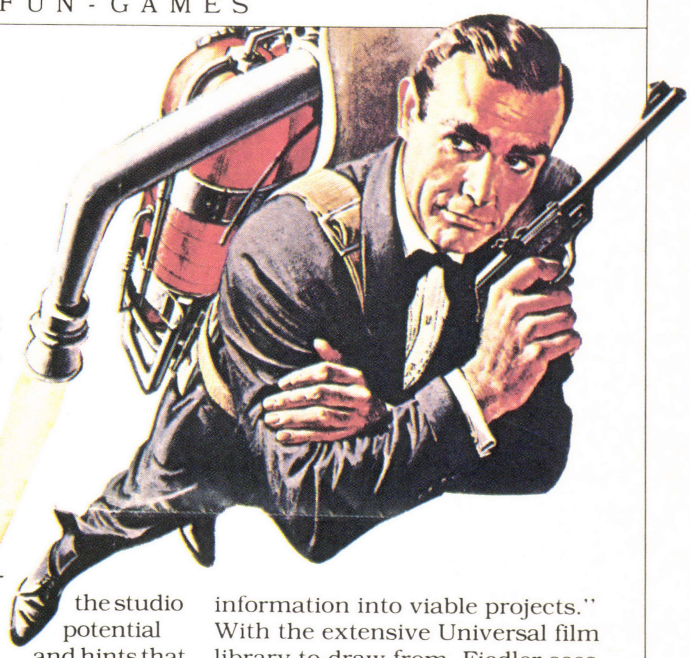
In the interest of clearing up any confusion as to implied or imagined similarities between the game and the movie, which just happen to share the same title, we asked Fong what the game's "challenge" was. He reports that the hypothetical situation involves a nuclear reactor on Spectra Island—which, thanks to an earthquake, suffers damage to its radioactive core, threatening a catastrophic "meltdown." By operating the joystick, the player is working a "decontamination diffusion vacuum" which can scoop up radioactive particles before they reach the core. Damaged cores, meltdowns—there's no way anyone could mistake Spectravision's game as having anything to do with the Columbia movie. Uh-uh. Nope. No way.

The popularity of the movies-to-games concept has been reaffirmed by the entrance of several major movie companies into the games field. These organizations, seeing meteoric growth in the market, are hoping to compete by using properties they already own in the creation of new media which will enable them to garner considerable revenue, while offsetting the multi-million-dollar gamble involved in their principal business: the making of theatrical motion pictures.

## Where's The Money?

Hollywood, you must understand, has seen better days. Sure, we still get monster hits like *E.T.* and *Star Trek: The Wrath of Khan* from the major studios, and occasional "sleepers" like the independently-produced *Halloween*. Unfortunately, statistics show that prospects for creating a runaway smash are growing dimmer and dimmer. Eight out of ten films fail to recoup their costs from theatrical engagements, and six out of ten fail to recoup their costs *at*





*all.* And since the prevailing notion seems to dictate huge investments ($40 million for *Heaven's Gate* and $50 million for *Annie*), any failures become huge liabilities to the studios—punctuated by the rolling of heads unceremoniously lopped off when these big-budget bombs die at the box office.

By using already established properties for video game inspirations, the studios can not only reduce losses on major fiascos, but possibly reap huge profits as well.

Twentieth Century-Fox, one studio with a troubled recent history, has established a separate arm specializing in video games named—not surprisingly—Fox Video Games. Marketing vice-president Al Pepper explains his studio's rationale in entering the marketplace: "Within the last couple of years, everyone's been taking a long, hard look at where our entertainment dollars are being spent. And while it's obvious that people are still going to the movies, we're seeing more and more of those dollars going into home entertainment—VCRs, disc players, and video games—so we decided to get involved." Although Fox's hottest properties (the *Star Wars* series) are already tied up by Parker Brothers, Pepper maintains that the studio still has plenty of potential game hits sewed up, and hints that some of these are in the works now.

MCA, parent company of the Universal studio, has likewise initiated a video games division under Jim Fiedler, former president of MCA Videodisc. He reveals that MCA has been talking games for nearly three years, and the establishment of the new division represents the culmination of much exhaustive market research. Games based on movies will figure prominently in Fiedler's plans. "We've identified the obvious properties for transferral to a games format," he states, "and we're in the process of going to manufacturers to see what they think and how we can proceed—then we'll cull that information into viable projects." With the extensive Universal film library to draw from, Fiedler sees several potential games favorites in *Dracula, Frankenstein, Smokey and the Bandit* and *Psycho,* among others. "*E.T.,* of course, is a matter of primary concern to us," he adds, "but that's a very involved situation and we need to look into it."

## Alien, The Game

The question, of course, becomes: With all these films available, what are manufacturers looking for in terms of games potential?

MCA's Fiedler says, "Consumer recognition, viability, how our creative community reacts to a given project. As a matter of fact,

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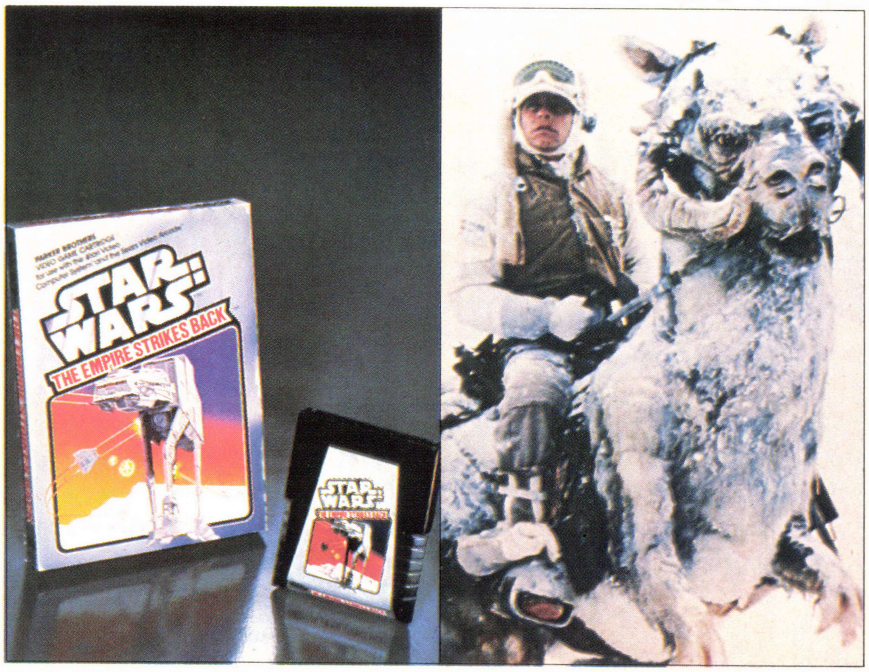
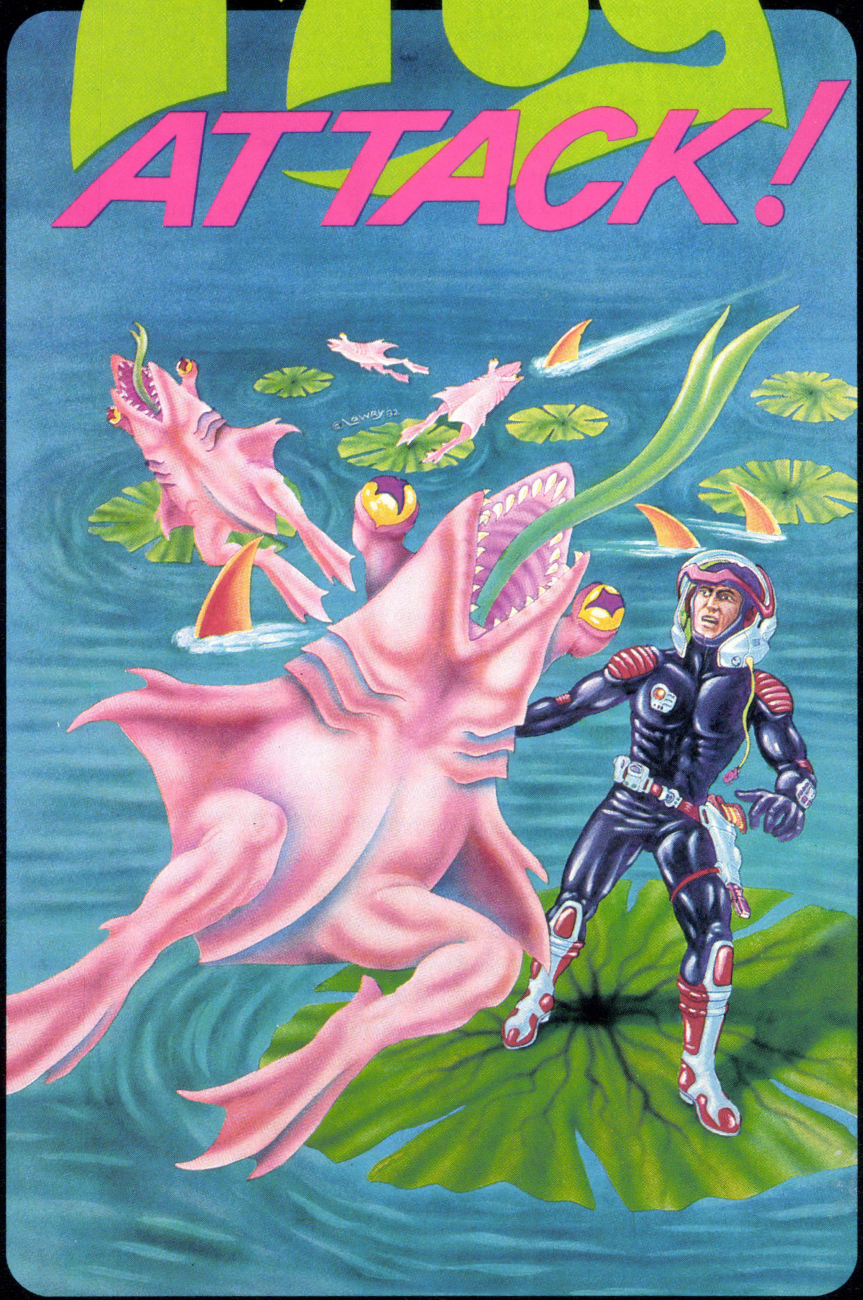



**THE EMPIRE STRIKES BACK (Parker) recreates the scene on the ice planet Hoth, when Luke and his Snowspeeder took on the Imperial Walkers.**

# Players Know

# Frog ATTACK!



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## Gamemakers:

# BOY WONDER

By Dan Gutman

## 20-year-old Mark Turmell is the industry's hottest designer

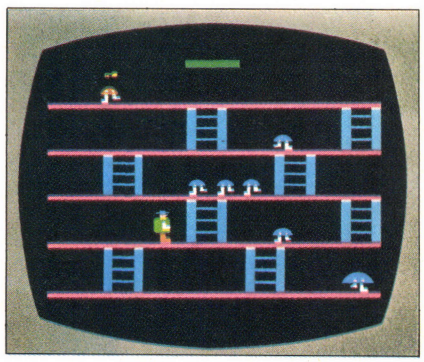
*I met Mark Turmell on a bus. I was in Chicago to attend the Consumer Electronics Show when this tall, skinny kid with blue jeans and sneakers sat down next to me. I ignored him but he struck up a conversation and it wasn't long before I realized this was a person worth knowing. The "kid," in fact, turned out to be one of the top video game designers in the country. While most 20-year-olds are going to rock concerts and trying to decide what they'll do with their lives, Mark is already a head programmer with Sirius Software, which is now making Atari-compatible games for Twentieth Century Fox. Mark agreed to share with us his thinking about video games and what it's like to rise to the top at such a tender age.*

**EF: Mark, how did you become a game designer?**

**Turmell:** I started when I was 15. I took an evening class at a Michigan community college in computer programming and I kept taking college classes while I was in high school. I graduated early from high school and was very close to getting an Associate degree at the same time.

**EF: Mark, I know you're not a computer nerd.**

**Turmell:** I hope not. Computer nerds are people who can't communicate with other human beings, so they communicate through computers. If you line up 10 people with one of them being a computer nerd, you can pick out the computer nerd in a minute.



**FAST EDDIE, by Mark Turmell**

**EF: How can you tell which one is the computer nerd?**

**Turmell:** By two things—scruffy hair . . . and weird clothes.

**EF: Okay, you're normal. Now, about game designing . . .**

**Turmell:** When I was 16, I bought an Apple home computer with the idea of making a living by designing games.

**EF: What was your first game?**

**Turmell:** *Sneakers.* And when I sold that . . .

**EF: How does a young kid sell a game?**

**Turmell:** I sent it Federal Express to Sirius Software and waited for their phone call. Actually, there was a big mix-up. They had two games submitted on the same day by guys named Mark. I felt my game was the best game on the market, but when I talked with Jerry Jewell, the president of Sirius, he told me it needed a lot of changing and polishing. When he mentioned specifics, I realized

that he wasn't even talking about my game! He hadn't even received my game yet. When he *did* get it, he called me back and offered me a job on the spot. I flew out to California the next day.

**EF: You dropped everything?**

**Turmell:** Yeah, I interrupted my studies at a four-year college, Ferris State University.

**EF: How do you come up with an idea for a game?**

**Turmell:** First of all, the other Fox designers and myself spend a lot of time in arcades. I think every home game, whether it's from Fox or Sirius or wherever, gets a lot of its inspiration from coin-op games. There *are* great original-type games . . . like *Freeway*. *Freeway* is a great innovative game. But mostly, everything starts in the arcades. When we're looking for a new game idea, first we look at what's currently hot in the coin-ops. That could be a *Donkey Kong* ladder game or a *Pac-Man* maze game, for instance. Then we look at what's currently available for home games. If there isn't a dynamite ladder or maze game, we'll try to make the best one.

**EF: What do you think your best game is?**

**Turmell:** My best game is *Turmoil*, which is coming out this month for the Atari VCS.

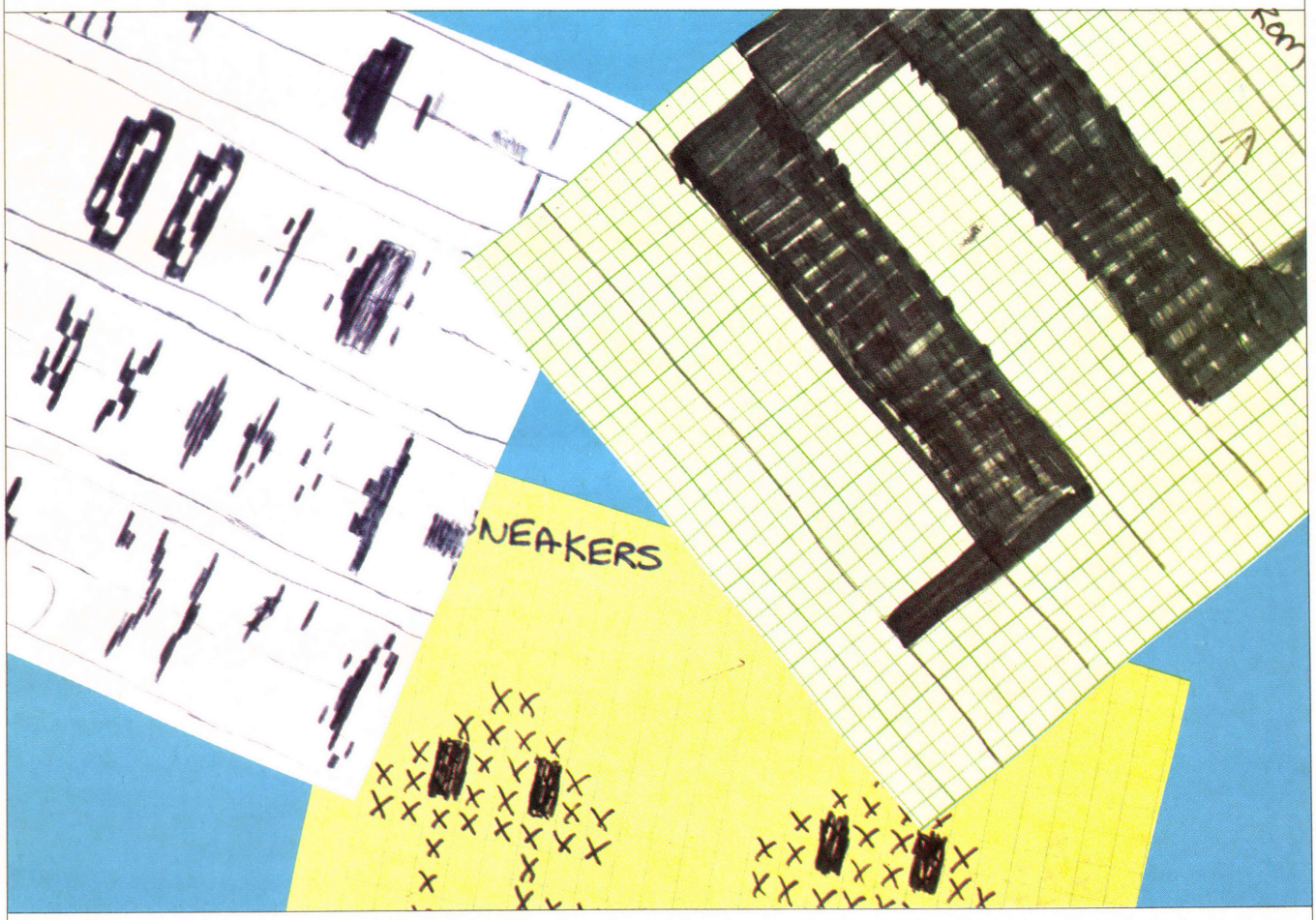
**EF: How did Turmoil come about?**

**Turmell:** Well, my last name is Turmell and all along I thought "Turmoil" would be a good name for a game. Very frequently, the name comes before anything else. Anyway, I feel best working with fast-action games. I don't like adventure games too much. The best fast-action game for the Atari system is *Kaboom!* and the best fast-action coin-op game, I think anyway, is *Tempest*.

**EF: Can you briefly describe Turmoil?**

**Turmell:** Sure. You are a spaceship that moves vertically in the center of the screen. On the horizontal plane are these tubes with alien creatures in them. You have to move up and down to shoot these aliens before they kill you and you can fire off up to 30 bullets in a matter of two seconds. Every so often a prize will appear in one of the tubes. The prize is only there for about three seconds, so you have to race down the tube to touch the prize and then race back to fight the aliens again.

**EF: Did you have any difficulty designing Turmoil?**

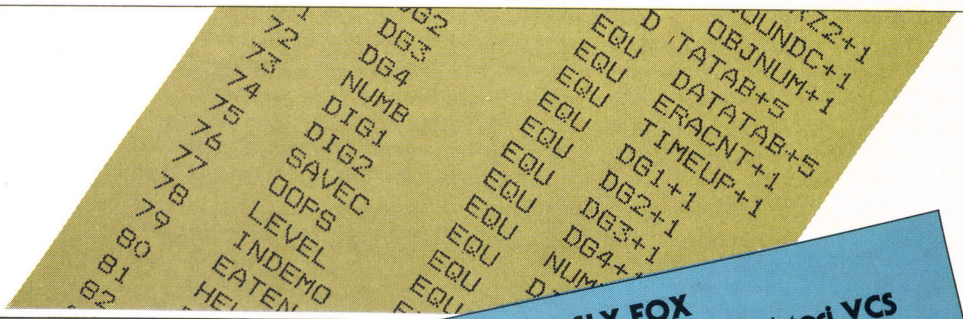



**Rough drafts: At left, possible creatures for BEANY BOPPER. Middle, Mark's sketches that became SNEAKERS. Right, an early worm for WORM WAR 1.**

**Turmell:** That's the funny thing. It all fell together for me in a matter of days. There are very strict limitations on what you can design on the Atari VCS, but with *Turmoil*, everything fit perfectly. It's amazing that nobody thought of the game earlier, because if ever there was a game designed for the Atari, this is it. As a matter of fact, it may be one of the first games being translated from a home format into an arcade game.

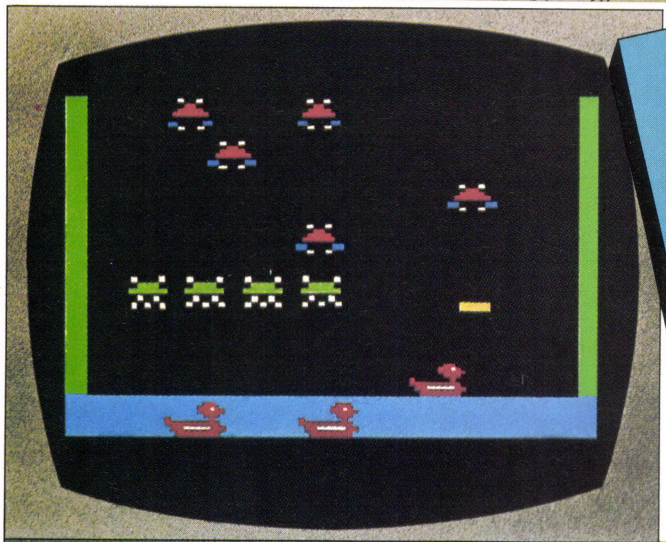
**EF: How would I go about getting the highest score possible on Turmoil?**

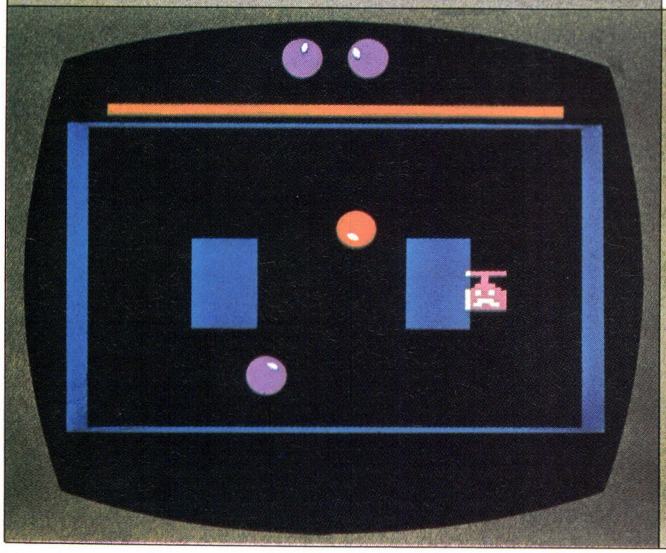
**Turmell:** For one thing, hold the fire button down. A lot of people seem to aim and squeeze off a shot every few seconds. When you hold the button down you get continuous fire. We

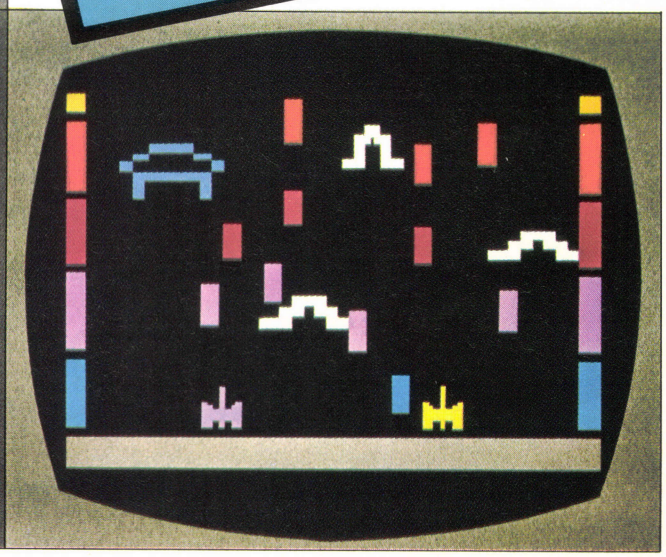



**SLY FOX**

**In addition to Mark's first Atari VCS game, FAST EDDIE, 20th Century-Fox enters the video game field with three other original games: DEADLY DUCK (left), in which flying crabs attack you with bricks and bombs; BEANY BOPPER (below left), in which you must prevent the Beanies from poking your eyes out and WORM WAR I (below), in which gigantic invertebrates terrorize the citizens of Teriyaki.**







found that most people, when they buy a game, just pop it into the machine and play—they don't read the instructions. So with *Turmoil*, you don't need any instructions. You pick up the stick and say, "Oh my God! Look at this stuff coming at me!" And you learn the game real fast.

EF: What's a good score?

**Turmell:** Oh, about seventy-thousand.

EF: What's your best?

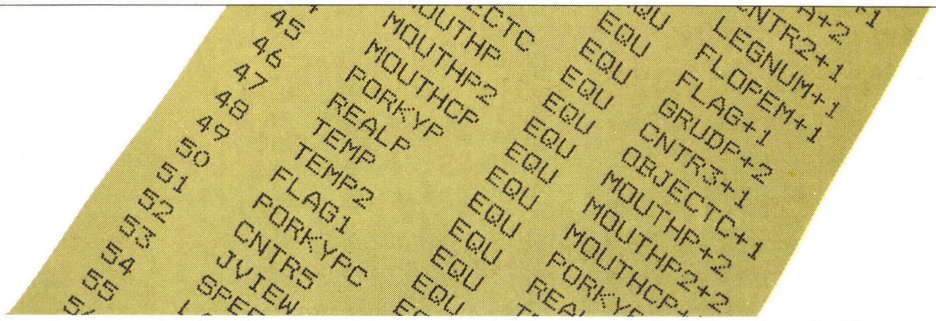
**Turmell:** I rolled it.

EF: You say **Turmoil** came together in a couple of days. How long does it usually take to design a game?

**Turmell:** It varies. We're getting a lot better as we learn more about the capabilities of the system. It's really possible to design a game from start to finish in a matter of weeks. Of course, when you start on a game, it's never an eight-hour day. It's at least a twelve-hour day, plus the times you wake up in the middle of the night with an idea. But realistically, you can turn out a top-notch game in two months. I read articles about some guys saying it takes five of them laboring for half a year to iron out a game. I don't know if it's their promotion or what. Sometimes we wonder if we should be saying that—maybe it makes your games seem more worth buying.

EF: You mentioned there are strict limitations on what you can program on the Atari. Can you give me an example?

**Turmell:** Yeah. You can only have two objects moving independently on the screen at once. Like *Pac-Man*. *Pac-Man* has one Pac-Man and four ghosts and you'll notice that Pac-Man is on the screen at all times, but the ghosts flicker. The computer actually draws the ghosts one at a




time. First one lights up for a fraction of a second and turns off, then the next one, then the next one, and so on. If you shot a picture of the screen, at any one time there would only be one ghost.

EF: Is there anything they could have done to make it better?

**Turmell:** Oh, yeah. No doubt about it—they could have made a better *Pac-Man*. Rather than having the ghosts pass through one another and travel together, they could have made the small sacrifice of never letting them touch one another. For instance, if one ghost is on the upper left corner, the next ghost would veer off on another course and not hit it. This would have allowed Atari to make the game more pleasing to look at.

EF: Mark, I know this is a touchy subject, but one that people wonder about—if Turmoil or some other game you design earns a million dollars for Fox, how much of it do you get?

**Turmell:** Well, we've been asked to keep our salaries to ourselves. I'll say this—you start with a salary comparable to what a doctor makes, plus royalties. My salary is paid by Sirius and the royalties are paid by Fox.

EF: How much in royalties?

**Turmell:** It depends. We could sell a million *Turmoils*, 300,000 or none. I think it would be fair to say that if one of my games is a big hit, Dave Winfield would be very jealous.

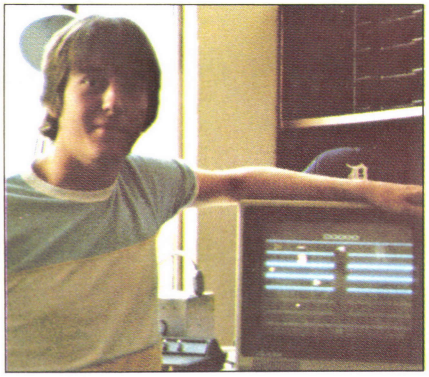
EF: Obviously you're doing pretty good for a 20-year-old kid. What have you bought for yourself with your money?

**Turmell:** The first thing I bought was a Porsche 924 Turbo with all kinds of options. Let's see, I also bought a really nice stereo. Oh yeah, and I bought a new bike.

EF: What do you do when you're not designing video games?

**Turmell:** Well, I'm really very shy, so I don't have many girlfriends . . .

EF: I find that hard to believe. You're young, good-looking and filthy rich. Can we tell our female readers to send their marriage proposals to you in care of Sirius Software?



**Turmell:** Sure, Federal Express, like I did.

EF: It's a deal. The address is 10364 Rockingham Drive, Sacramento, CA 95827. Okay, then what do you do?

**Turmell:** I'm totally into sports. I love to be outside. I play tennis, racquetball and basketball usually. I love to gamble, too. When I was growing up in Michigan and we played baseball or pool or anything, there was always money riding on it. Now that I live in California, I go out to Reno some nights and play blackjack. Last night I won $500.

EF: Don't you have to be 21 to get into the casinos?

**Turmell:** Yes. I'm breaking the law.

EF: Don't you want us to cut this part out of the interview?

**Turmell:** No, that's okay.

EF: Do your friends treat you differently now?

**Turmell:** No. They did at first, but when they saw that I hadn't changed with the job and the money, everybody was alright.

EF: What does your mother think of your profession?

**Turmell:** Oh, she's really excited. She supported me the whole way. But when I bought my first computer and told her I was going to make a million dollars designing games, she said, "Yeah, yeah." And when I wrote my first game she said, "They'll probably rip it off and not pay you." But last summer, when I started getting these royalty checks for $10,000 a month, she began to understand.

EF: Who do you consider to be the top designers in the video game industry today?

**Turmell:** Imagic does some good stuff. *Demon Attack* is very good. You have to hand it to Activision, too, although it's generally agreed that their games look better than they play. Their games don't have a lot of depth. But maybe they don't want a lot of depth, because then you'll get tired of the games faster and buy new ones. I think Coleco's *Donkey Kong* is great and ColecoVision is very exciting.

EF: Do you think the new Atari 5200 and ColecoVision are going to make the Atari VCS obsolete?

**Turmell:** Yes. In fact, I think they will cause problems for the arcades because the graphics are so good. It's not going to happen for a while because so many people own the VCS and all these companies are making software for it. But right now, I can't see anyone buying the VCS when there are more advanced products on the market.

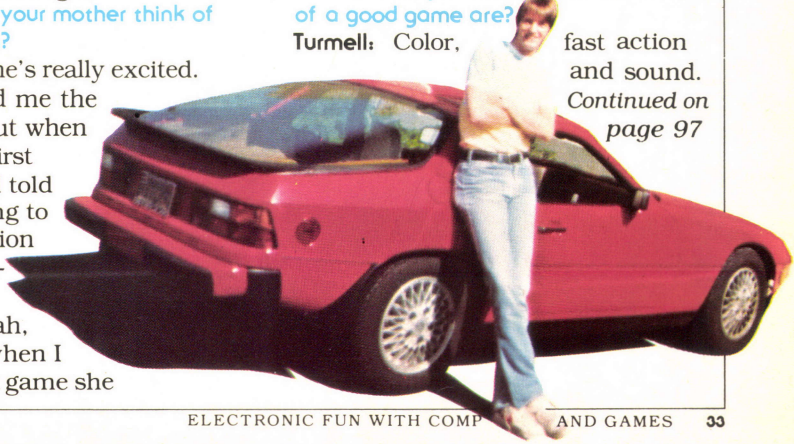
EF: How long will designers like yourself continue to design games for the Atari?

**Turmell:** I'd stop tomorrow if I could. I'd love to design games for ColecoVision. But that wouldn't make sense at this time because it hasn't really proven itself like the Atari has.

EF: What do you think the elements of a good game are?

**Turmell:** Color, fast action and sound.

*Continued on page 97*



# VECTREKKING!

*Are you tired of having to share the TV with people who want (of all things) to watch* programs *instead of playing video games? Do you want to play arcade-quality games in your room, your friend's room or someplace where you won't be annoyed by (a) your parents, (b) your kids, (c) your baby brother who drools on the cartridges, or (d) your sister who always wants to know what you did with her Clash album? If you answered "Oh God, yes!" to any or all of the above, have we got a system for you! It's an all-in-one game system* with its own TV screen, *an arcade-type control panel, arcade memory and graphics chips and 12 cartridges (so far) plus one resident game. And it only costs $200—about the same as any* home video game. What is the name of this apparent answer to the video gamer's prayer? Vectrex from GCE.

Vectrex looks just like a portable television but has several advantages a portable TV does not—for example, no *Brady Bunch* reruns. Of course, there are other advantages. Let's start with the screen.

What really sets Vectrex apart from other home video games is the type of screen it has. Rather than being a raster type—that is, using graphics which are composed of pixels or blocks of dots like your own television screen— Vectrex has a vector screen. Vectors don't rely on pixels and therefore the graphics are smoother and slicker, resembling those found on arcade games such as *Asteroids* and *Tempest*. The vector screen also gives Vectrex the advantage of depth. This definitely enhances many of the games available for this system, most notably the space games in which ships can disappear into the distance.

The control panel is closer to the arcades than any other system currently out. It doesn't consist of a joystick or a disc-and-calculator-type unit. Instead it is a true panel with a small joystick on the far left and four pleasantly concave function buttons to the left, each one controlling a different action in a different game.

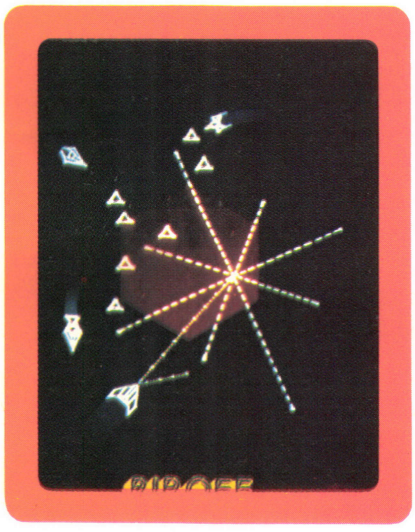
The panel folds up neatly into the bottom of the unit, doing away with messy wire tangles. It is attached by a 6-foot coil cord, allowing you enough room to

**GCEs Vectrex uses a vector screen, which gives smoother graphics than a TV.**

move back and really enjoy the special effects. Although Vectrex only comes with one of these panels, a second one for two-player games is available at a cost of only $35.

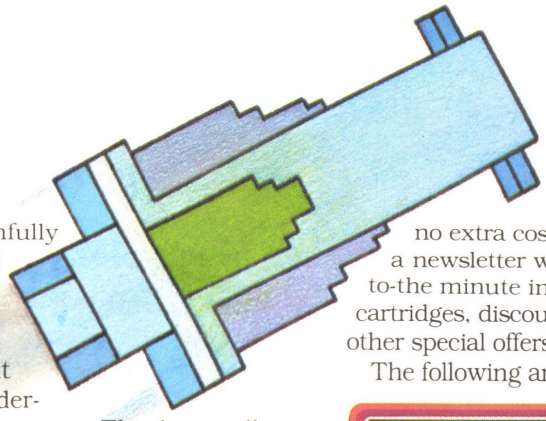
Vectrex also offers you 64K of memory, which naturally results in higher-resolution graphics, considerably more complex games and a greater number of variations available in each game.

If there is one drawback to the Vectrex system it is that the graphics are black and white. But each game comes with its own



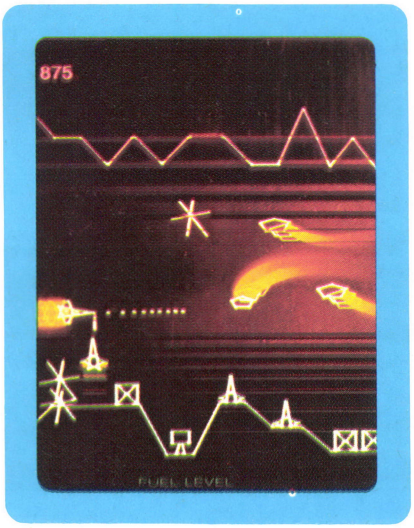
brightly colored overlay. And these are not as tacky as they sound. They are durable plastic and fit neatly over the screen, adding a surprising amount of color to the graphics. Each color overlay also has a key printed on the bottom which defines the function of the four buttons on the control panel. So in *Hyperchase*, for example, the joystick is for directional control, the first button for upshifting, the second for downshifting, the third for braking and the fourth for accelerating.

The knobs—on/off and volume (each Vectrex game plays a little tune before it starts up and sound effects faithfully duplicate those in arcades)—are on the front right, underneath the screen. They're small, unobtrusive and recessed so you can't hit them accidentally in the middle of a furious game. The brightness control is located on the back of the unit.



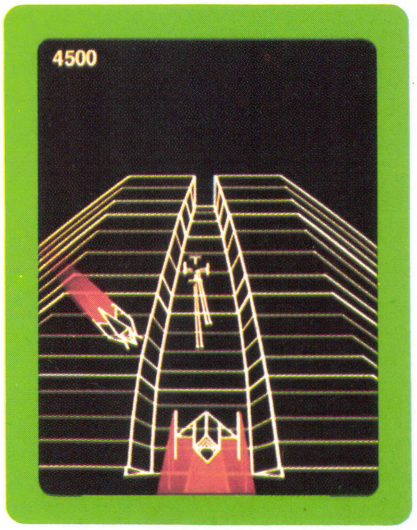
Cartridges are inserted on the right side and the basic drill is the same as in any other home video game system: Be sure the power is off, plug in the cart and then turn the power on. All of the games feature an accumulator which displays the highest score for that game as long as the unit remains on and the same cartridge remains in the slot.

The system can be played on any hard surface, but it is wise not to place it on a bed or carpet unless, of course, you *want* to block the ventilation ducts—which does nothing for the system except ruin it.




Any owner of Vectrex is automatically eligible for membership in the Vectrex Owner's Club at no extra cost. Members receive a newsletter which features up-to-the minute information on new cartridges, discount coupons and other special offers.

The following are previews of the




Vectrex games—*Mine Storm, Armor Attack, Berzerk, Clean Sweep, Hyperchase, Star Trek* and *Scramble.*

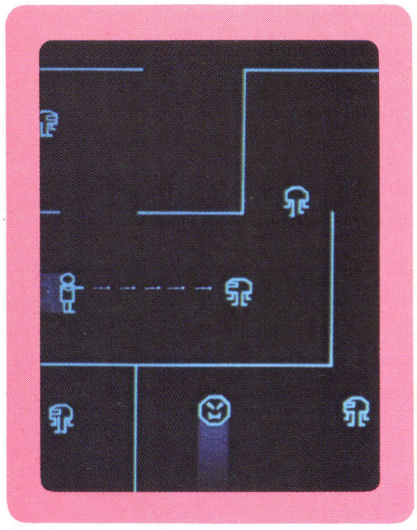
Other cartridges that will be available soon include: *Space Wars, Star Hawk, Rip-Off, Solar Quest, Blitz!* and Cosmic Chasm. They all are expected to sell for about $30 apiece.

## MINE STORM

This is the resident game. To play, you use the joystick and buttons two, three, and four. Number four is the firing button, number three is thrust and number two is the escape key which warps your ship to another part of the screen, similar to the hyperspace tactic in other games.

The game is very exciting and makes spectacular use of Vectrex's 3-D capabilities. After a brief and appropriately galactic musical introduction, an enemy ship moves through the playing area seeding a mine field and gradually disappearing in the distance. It plants four

## BERZERK



large mines. This is only the beginning of your problems.

Rotating the ship with the joystick, you fire at the mines, but do you destroy them? No. Each one you hit becomes two smaller mines. Curses. And after awhile, the enemy ship reappears and tries to either destroy you or plant additional mines. If, in fact, you manage to clear the mine field entirely, you will warp to another mine field and this one's more difficult. In addition to the dumb mines' the second field also contains fireball mines which, when hit by your laser, explode, hurling lethal fireballs in all directions. You either have to destroy them or get out of their way quick.

If you get really good and clear out the second mine field, you warp to a third which has magnetic mines as well as the other types. These mines are nuisances, following you around wherever you go. The object here is to destroy them at once. These mines also have the disconcerting ability to multiply. The fourth field brings you a fireball/magnetic mine combination and the fifth field presents you with a mixture of all of the above.

## STAR TREK

Video games—the final frontier. In this game, you are Captain Kirk on the bridge of the starship Enterprise, searching the universe for evil Klingons and Romulans to destroy before they destroy you. You use the joystick to maneuver the ship through space and to aim your gunsight. You move from sector to sector, each with more enemy ships than the last, until you reach sector nine where you have to face the dreaded Klingon mothership, which is anything but maternal and fires all kinds of torpedoes at you. It can only be destroyed by being hit directly on its nose and only when the nose is lit up. If you do somehow manage to destroy her, you warp back to sector one and start all over again.

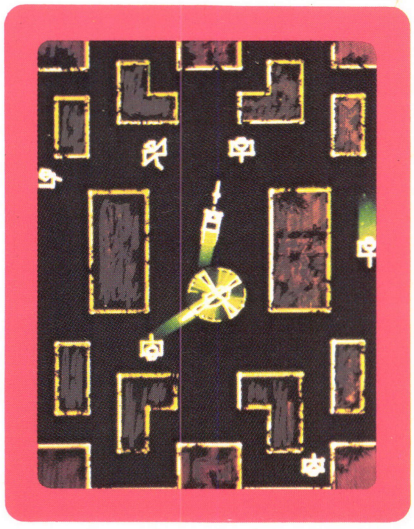
In the event that you are a glutton for punishment, you can always use one of the Black Holes as a shortcut to the Klingon mothership. You may select the sector in which the Black Hole will appear but, if you don't want to do that, it will automatically appear in sector one.

Your perspective is from the cockpit and if you are hit by enemy fire, the windshield cracks and that ship is out of the game. You start with three ships and earn a bonus ship each time you destroy a Klingon mothership.

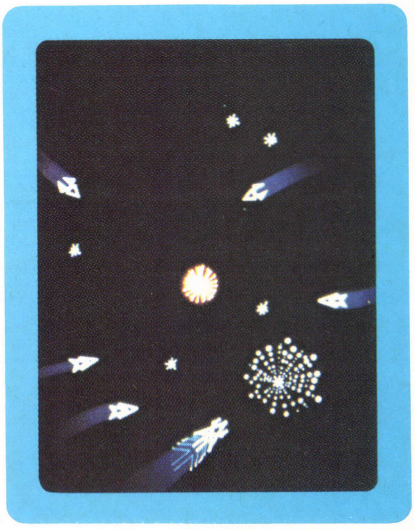
Your laser power and shield strength are limited and each new sector uses up laser and shield energy at a faster rate than the previous one. Gauges at the bottom of the screen tell you how much power you have left for each and, when you get low, you have to refuel at your space station. Refueling can be tricky. You must align yourself with the door of the space ship (which is rather small) and then hook up with it by pressing button two, the power link. You only have one space station per sector.

The game is fast, difficult and challenging. Beam me up, Scotty.

## ARMOR..ATTACK



## SOLAR QUEST



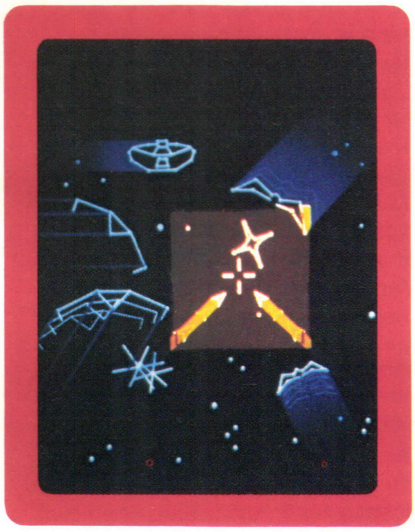
## ARMOR ATTACK

Imagine being the only person in a bombed-out city with only one armed jeep to protect yourself from two enemy tanks and a rather vicious armed helicopter. This is the scene you must face in *Armor Attack*. And the graphics, swinging tank turrets and arcade-quality sound effects all add up to realism and pleasant frustration.

Although there are buildings which you can duck behind when things get rough, you still have to be really adept at controlling the jeep's very sensitive aiming and maneuvering controls if you want to destroy your attackers. Hitting a tank once will only succeed in stop-

ping it from moving. It can still shoot at you. You must hit it a second time in order to destroy it. And as you destroy tanks, new ones come rolling in and a battle

STAR TREK



helicopter flies overhead. Unfortunately, you cannot hide from the chopper, although you can shoot at it. A bonus jeep is awarded for every five helicopters you destroy.

You can select any one of three game options: In games one and two, the buildings can be seen, while in game three, they're invisible, creating a blind maze.

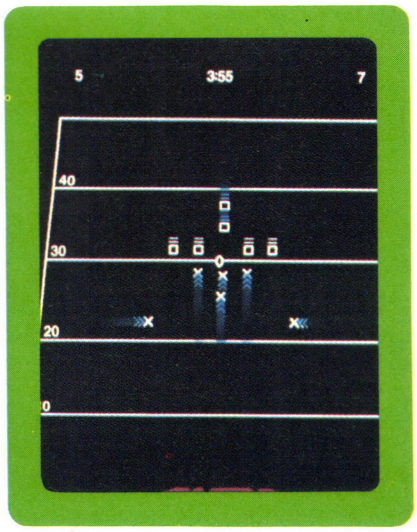
## BERZERK

You are a humanoid in this great arcade translation and must run through mazes dodging bullets and shooting at robots. You can only shoot in the direction in which you're moving, so a lot of retreating and rushing in is necessary. You also must be very careful not to walk into any walls or try to shake hands with robots (no matter how cute you might think they are). They are electrified and contact will kill you. You can escape from the maze at any time simply by running through any of the exits.

The idea, is to stay in the maze as long as possible, shooting up robots and running up points. Leaving a maze, however, doesn't get you any relief. You simply find yourself in another maze facing more aggressive robots than before.

You'll be pleased to hear that Evil Otto has been successfully transferred to this format. As you may know, Evil Otto is a malevolent variation of those little round smiling faces, only behind Otto's grin

BLITZ!




lurks a rather unpleasant personality—he wants to kill you.

Although the graphics are smooth and clear, no 3-D effects are present in this game so, in comparison, it is rather plain. However, the game play is faithful to the arcade game and the action is quick and precise.

## CLEAN SWEEP

A group of evil bank robbers have just blown a bank to smithereens. You, the bank president, have to recover all that money that is now mixed in with

**Imagine being the only human in a bombed-out city while tanks try to kill you.**

the rubble. Your tool is a vacuum cleaner and you've got to suck up all the bills before the thieves, who apparently have lost their getaway car, destroy you, too. In several game options, the lights are mysteriously doused, requiring you to gather the money in a blind maze.

HYPER CHASE

The bag on the vacuum cleaner has a limited capacity. This means that you have to run frantically to the deposit box in the center of the maze, drop off the money and then dash out to collect more. If you don't, the bag explodes.

Meanwhile, the thieves are stalking you. You have to avoid them or get your vacuum supercharged. This is done by entering any one of the four special rooms in the bank's four corners. Once you are supercharged, you can destroy the robbers. However, you can only use each room once. After that the door closes and you no longer have access to it.

Each maze gets successively harder, with more money to pick up and a vacuum that holds less. You start with five vacuums and earn a bonus vacuum every 10,000 points.

## HYPERCHASE

This is a super-fast, super-action road race which exploits the Vectrex

3-D effects to their fullest. The highway banks and curves, tiny cars in the distance grow as you overtake them, and you drive through a tunnel so realistic you'll feel claustrophobic.

There are two game options: Game One has you racing against time as you try to finish the course as quickly as possible. In this variation you get an unlimited number of cars, so you don't have to worry about crashing insofar as completing the course is concerned. But crashes do waste a lot of time.

Game Two allots you only five cars and you've got to travel as far and as fast as you can before totalling them all.

The control panel adds a very realistic feeling to the game. The joystick controls the forward movement and direction of the car, and each button controls a different automobile function. Button one is for upshifting; button two for downshifting, three for braking and four for accelerating. What's particularly charming is that in order to achieve your fastest speed, you must shift into high gear. You can actually hear the engine laboring if you try to go too fast in too low a gear. And if for some reason you slow down or come to a complete halt, you must downshift before you can speed up again.

## SCRAMBLE

Relentlessly loyal to its arcade parent, *Scramble* is perhaps the best of the group. And the color overlay really enhances the playfield.

You're flying a rocket through very heavy and complex enemy defenses. Guided missiles, alerted by a radar warning system, fire straight up to try to get you. You can avoid the rockets, bomb them, or shoot them with a laser cannon. You also encounter UFOs and flamoids (which cannot be destroyed and therefore must be avoided) and some of the time you'll find yourself having to maneuver about in some very tight and curvy tunnels. Your mission is to bomb as many of the enemy's bases as possible and also destroy their fuel tanks. Each fuel tank you succeed in destroying replenishes your own fuel supply.

There are five levels to get through: the mountains, the cavern, the flamoids, the city and the maze. Each level has its own peculiar dangers: The city has missiles hidden in silos and the tight maze calls for really precise flying. Also, there's just no fuel tank location at the beginning of the maze, so it's best to fill 'er up before you start.

Once you have successfully traveled through all the levels, you will reach the enemy base. If you succeed in destroying the enemy base, the *Scramble* theme music plays, the game's difficulty level increases and you start again with a full tank. Each game begins with five ships and a bonus ship is awarded every 10,000 points.

A fast-paced, exciting and colorful game.

*We feel the Vectrex system is excellent and so are its initial games. What remains now is for some major software manufacturers to make more games and give this system the only thing it lacks: an expanded library.* □

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## THE $200 QUESTION:

# Which game system is right for you?

*The new home video game systems are flying out of Silicon Valley faster than Pac-Man rip-offs. Can you trust a friend to tell you which one to buy? Can you trust a salesperson? Can you trust George Plimpton? No way, Jose. But you can trust us.*

*The first thing to do when looking for your own system is to ask yourself a few questions: Do I want a vast selection of games? Are graphics most important to me? Do I have a pair of shoes that match? To make your task simpler, we've put together several questions you may want to ask yourself. Based on your answers, you will be directed to a specific system or systems. This is a lot like the quizzes found in* Cosmopolitan *and* Playboy *only it has nothing to do with sex drive.*

Answer the following multiple choice questions either *true* or *false*. You may read the other choices and you are required to laugh at them, but you may not choose them. We're sorry but that's how it is. Once you've written down all your answers on a piece of paper, look at the answers. The answers will pinpoint exactly what you should be looking for and help you determine the right video game system for you. Reading the answers *before* answering the questions constitutes cheating and if we catch you, you'll have to stand in the corner of the page. Forever.

If you answer all these questions honestly, it will be a match made in heaven between you and a video game system. If you lie and cheat on this test, don't blame us if you end up with a system that gives you a rash.

## Questions

**1. One picture is worth at least a thousand words.**

a. True
b. False
c. That depends on what it's a picture of

**2. I would rather go to an ice cream parlor that offers a choice of 32 flavors than one with only vanilla and chocolate.**

a. True
b. False
c. I'm on a diet

**3. To me, money is no object.**

a. True
b. False
c. I wish

**4. There's no place like space.**

a. True
b. False
c. Well, no one can hear you scream out there, that's for sure.

**5. I love sports. I don't like to get up.**

a. True
b. False
c. Get me a beer

**6. Reading *War and Peace* in the original Russian is my idea of a good time.**

a. True
b. False
c. Da
d. Nyet

**7. Thin books. Give me thin books with big print and pictures.**

a. True
b. False
c. Could you repeat the question?

**8. I like to read the book, see the movie and watch the TV sitcom, too. I love 'em all!**

a. True
b. False
c. People like that should be shot

**9. I will not have copies of the great masters hanging in my house.**

a. True
b. False
c. What's a great master?

**10. I love organic foods and pureeing my own tofu.**

a. True
b. Like, false, man
c. Thanks for sharing that concept with me, you know?

## Answers

**1** If you answered "true," it is safe to say that graphics are important to you. Therefore, Intellivision, Vectrex, ColecoVision or the Atari 5200 are for you. These offer the best, highest resolution graphics. If you answered "false," then you are interested in other things besides graphics. So keep reading to find out which system *you* should buy.

**2** If you answered "true," then it is the variety of video games that interests you. It would be wise for you to pay attention to the number of games and the diversity of game themes offered by any given system. For instance, you can play about 45 different games on Intellivision and Odyssey and over 30 on Astrocade. Over 200 games fit into the Atari VCS and even more fit ColecoVision, *if* you buy their Atari expansion module. If you answered "false," then you are probably looking to play specific types of games. You'll find the Intellivision system lends itself very well to sports games, while Atari is stronger in space and action-type games.

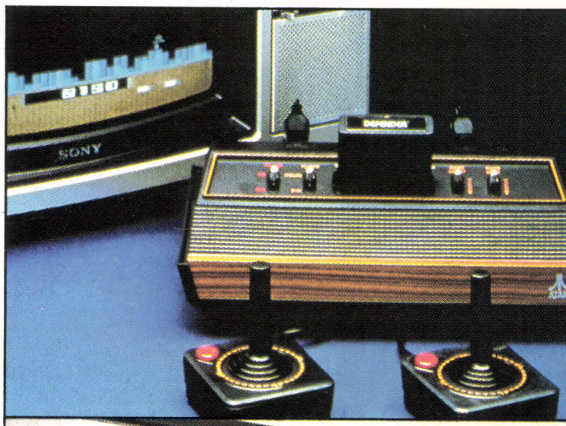
**3** If you answered "true" to this question, we would like to know you. Please send a copy of a recent bank statement. As far as video games systems go, the more you pay, the more you get, natch. So shoot the moon. But don't fret if you're a little short this month. You can get an Emerson or Fairchild system for less than $100 and that Atari VCS all your friends have can be had for as little as $120. You don't have to pay $200 or more to get an excellent system.

**4** If "true" was your choice, then a wide range of space games is of galactic importance to you. It is therefore very important for you to consider the systems which will offer you the greatest and most varied selections. Atari, simply by virtue of the number of cartridges compatible with its VCS, has by far the most games that take place in space. They have an edge, you see. In addition to having a home game division, they also have an arcade game division and can easily translate the most popular coin-op games into home format without licensing hassles. GCE's new Vectrex system offers some dynamite space games with phenomenal 3-D effects and many of their cartridges are also adaptations of popular arcade games.

**5** True? Well, George Plimpton isn't talking out of the side of his head. Intellivision's sports games *are* truly spectacular, especially *NFL Football* and *Major League Baseball*. If you wish to play sports on your TV set, you should look at Intellivision. But be warned—some of these games require two players to play them. And these games are not quickie "sit-down-for-a-few-minutes-and-play" games. You have to spend a lot of time reading, studying, and figuring out what's going on. Which brings us to the next question . . .

**6** If you answered "true," you probably won't mind reading lengthy instruction booklets in order to understand game play. Here's the scoop. The instructions for Intellivison are *not* printed in Russian, but they *are* complicated. So are the games. But if you like complex games, you probably won't mind taking a little time to learn how to play them. Atari, on the other hand, has games that you can pop in the machine and start playing without even reading *any* instructions. Astrocade, ColecoVision and Odyssey are somewhere in the middle—not as complex as Intellivision, yet not as easy as Atari.

**7** If you answered "true" it doesn't mean you're dumb, mind you, but if you're not into heavy reading, you'll want the system that's the easiest to learn. Think about Atari VCS or Vectrex. And think about it this way—you play video games to have fun, right? You shouldn't have to curl up with a good instruction manual just to have a little fun.



**Five popular video game systems. Top: Atari VCS, ColecoVision. Above: Intellivision with Intellivoice. Bottom: Astrocade, Odyssey². Which one is right for you?**

**8** Aha! If you answered "true" this indicates that you don't mind if arcade games are translated into a slightly different, modified form for home systems. Atari and ColecoVision lead the way in bringing arcade games home. Most of the smash coin-op hits—*Space*

*Invaders, Asteroids, Missile Command* and *Pac-Man*—are owned by Atari. Keep in mind that the technology that goes into an arcade game costs thousands of dollars, so your $30 home cartridge can't be exactly the same as the original. But some adaptations are remarkably faithful to their parents.

**9** True? You're obviously someone who appreciates originals. Almost any system is good because they all offer a selection of original games. You will find that the companies that are springing up just to make software (games) generally concentrate on original ideas. Right now Activision and Imagic make original games exclusively for the Atari VCS system. But even as we write, they are preparing games for Intellivision and Odyssey owners, too.

**10** If you answered "true" to this question, you're looking in the wrong area altogether. You don't want a video game. What you want is a Cuisinart. That's the subject of another magazine.

All of this advice, of course, is simply here to give you a general idea of what to expect when you go in search of the ultimate game system. With a little information under your belt, you can walk confidently into any store and ask to see a video game. And when the salesman says to you with a superior smirk, "Which one?" you can look him straight in the eye and answer without stuttering.

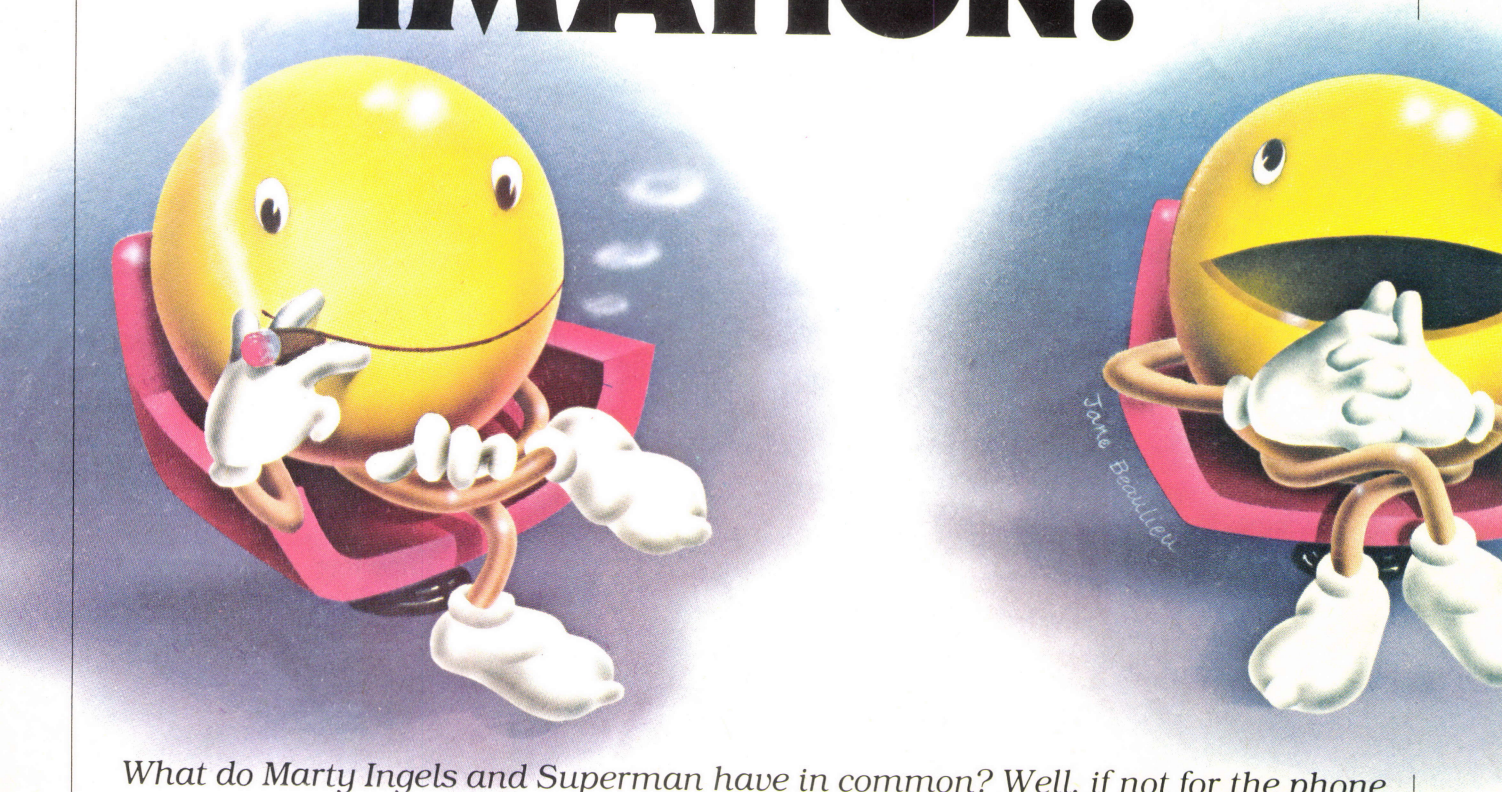
Bear in mind, also, that what's written here is not the law. No one is going to come to your house and force you, at laserpoint, to buy the system your answers matched you up with. An excellent thing to do is to go to your nearest dealers and try out the systems that interest you most. Play them for a while. Get a feel of their action and look for features that please you. You never know; things you thought were important might suddenly be replaced on your priority list by features you didn't know existed or thought were incidental. Be flexible. Go in with an open mind and, given the number of systems from which you have to choose, it's a good bet you'll find something you want.

If not, wait. At the rate new games companies are proliferating, in three weeks (or less) someone will come out with another system that might be your perfect match. □

*This article is an excerpt from Randi Hacker's new book* The Last Word On Home Video Games, *published by* Video Review. *This complete shopper's guide to home video game software and hardware will be available in bookstores across the country in time for Christmas.*

## Look out, Saturday morning TV!

# Here comes... PAC-MAN-IMATION!




*What do Marty Ingels and Superman have in common? Well, if not for the phone company, they'd both be out of a job. That's right. On September 25 at 9:30 a.m., Ingels, star of such movie and TV classics as* Irving's Root Canal *and* I'm Dickens, He's Fenster, *became Pac-Man to over 20 million kids—and a few bleary-eyed adults—when the animated* Pac-Man *cartoon show premiered on ABC-TV. And all because of the phone company.*

*According to the raspy-voiced comic, the search for just the right larynx with the necessary acting credentials to bring the insatiable dot beyond "wocka wocka" to a full command of the English language surpassed the worldwide talent hunt for* Gone With the Wind's *Scarlett O'Hara.*

Well, maybe not quite that extensive, but ABC executives were looking for just the right rounded tones and they found them in Ingels. And, to hear him tell it, he wasn't even trying out for the role. In fact, for eight years he hasn't done any acting at all. Instead, he's been best known as husband of actress/singer Shirley Jones (who is, herself, best known as mother of Patrick Cassidy, best known as brother of Shaun

Cassidy) and president of Ingels, Inc., one of the nation's leading celebrity brokerage firms.

But enough from us. Let's hear the story from the Pac-Man of the Hour himself . . .

**EF: Why do you think you landed the prized role of Pac-Man?**

: It may sound a little crazy, but I really think it's because I have a public destiny. Yet never in a million years did I think it would come through a computerized donut—although I confess, I've always wanted to be a dot, but until now, my arms and legs always got in the way. I came very close to realizing this lifelong ambition when I became Jerry Lewis' protege. This was being dotty but it just wasn't close enough. Soon after that, I was given the lead in a situation comedy, *I'm Dickens, He's Fenster*, but even that wasn't round enough.

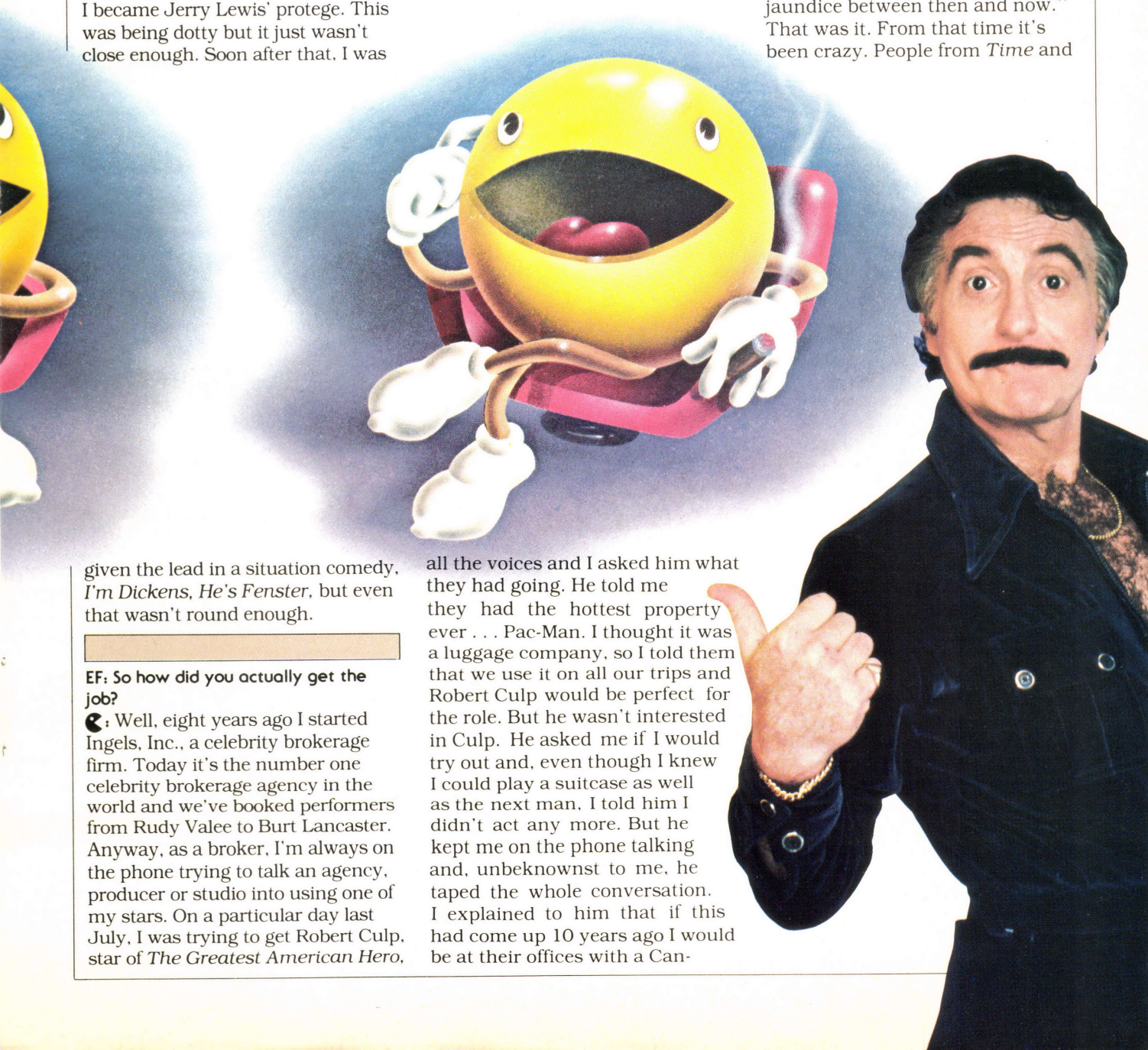
**EF: So how did you actually get the job?**

: Well, eight years ago I started Ingels, Inc., a celebrity brokerage firm. Today it's the number one celebrity brokerage agency in the world and we've booked performers from Rudy Valee to Burt Lancaster. Anyway, as a broker, I'm always on the phone trying to talk an agency, producer or studio into using one of my stars. On a particular day last July, I was trying to get Robert Culp, star of *The Greatest American Hero*, a job. I was calling Universal but I dialed Hanna-Barbera, so I figured, why waste a dime, and I asked for the casting department. I get on the line with the guy who screens all the voices and I asked him what they had going. He told me they had the hottest property ever . . . Pac-Man. I thought it was a luggage company, so I told them that we use it on all our trips and Robert Culp would be perfect for the role. But he wasn't interested in Culp. He asked me if I would try out and, even though I knew I could play a suitcase as well as the next man, I told him I didn't act any more. But he kept me on the phone talking and, unbeknownst to me, he taped the whole conversation. I explained to him that if this had come up 10 years ago I would be at their offices with a Can-dygram but not anymore. I don't audition. I don't look for work and that's that. I also told him he should call me if they were interested in Culp.

**"We gave him personality. I think Pac-Man is a cross between Fred Flintstone, Captain Marvel, William Bendix, Popeye and, of course, me."**

**EF: So did they call you back?**

: You bet. I found out later they played the tape for ABC, Bally/Midway and the guy who actually thought up Pac-Man in Japan. I guess you don't have to speak English to recognize perfect dot tones when you hear them. I said, "Well, when does Robert Culp show up for work?" The guy said, "I don't know anything about Culp, but *you* report on Monday, and try to contract a small case of jaundice between then and now." That was it. From that time it's been crazy. People from *Time* and



*Newsweek* have been calling because of Pac-Man. I'm surprised *Family Circle* hasn't called. It would seem a natural shape for them to be interested in.

**EF: You said you never heard of Pac-Man before getting the part. Have you boned up on the character since?**

ᗧ: I had to. I studied his family tree. Did you know he's descended directly from royalty? There'd be yellow blood coursing through his veins if he had any. One of his ancestors was Pacbeth. He's also related to Dot Holliday. And then the studio helped. The day after I got the part an eight-foot crate arrives at my door. I thought they were delivering Chicago but there, big as life, was a Pac-Man arcade game.

**EF: Well, behind every great dot there's a voice. How would you describe the Pac-Man cartoon series?**

ᗧ: Well, anyone who has seen the show knows our Pac-Man is different from the game. It has to be. After all, it would become pretty tedious watching a yellow dot chase ghosts and eat dots for a half hour. It lacks depth, you know?

**EF: So how did you add depth?**

ᗧ: Well, we gave him a hat but it wasn't deep enough so we gave him some personality. I think he's a cross between Fred Flintstone, Captain Marvel, William Bendix, Popeye and, of course, Marty Ingles.

**EF: For those who haven't seen it yet, give us an idea of what the show is like.**

ᗧ: It's like the Flintstones, in a way. Pac-Man lives in Pacland with his wife, Ms. Pac-Man and Baby-Pac makes three. Since he has to make a living—he only runs mazes as exercise, I guess—he's the security guard at the Power Pellet Forest where the magic power pills—sort of what spinach is to Popeye—are stored. He's always being chased by four ghosts who are the henchmen or henchghosts or whatever, and a girl ghost named Sue. They are, of course, the villains of the piece determined to find out where the pellets are kept and sell them on the black market to arcade game pirates. Not really. When the ghosts get too close to finding out where the pellets are, Pac-Man eats a power pill and goes after the ghosts. That's really just the framework. Many of the stories center on the family, like what happens when the baby eats a power pellet or Pac-Man goes on vacation.

**EF: I always wondered where Pac-Man would go to get away from it all. Spend two weeks in Utopia? Go to Atari Circus for the afternoon? Anyway, seeing that Pac-Man is a Hanna-Barbera character, does he have a catch phrase, ala Fred Flintstone's "Yabba Dabba Doo," that we'll soon start hearing in every schoolyard?**

ᗧ: That's a great question. As soon as the show was created, everyone began looking for that phrase. It sometimes spells the difference between a show's success and failure. As a matter of fact, we may have stumbled on the right one. During each of the shows, Pac-Man eats a power pill and gobbles the monsters. One time, during the taping of the scene, I ate the pill and just came out with "Pac-a-pac-a-wow-wee."

**EF: "Pac-a-pac-a-wow-wee?"**

ᗧ: Yep, that's it. And would you believe the Hanna-Barbera executives made a call to New York, probably dragged some ABC executive out of a meeting with Walter Cronkite, and asked him what he thought of "Pac-a-pac-a-wow-wee?" It doesn't end there. Now they're going to test it.

**EF: How do you test a "Pac-a-pac-a-wow-wee?"**

ᗧ: Multiple choice? I don't know.

**Do you do any other voices on the show?**

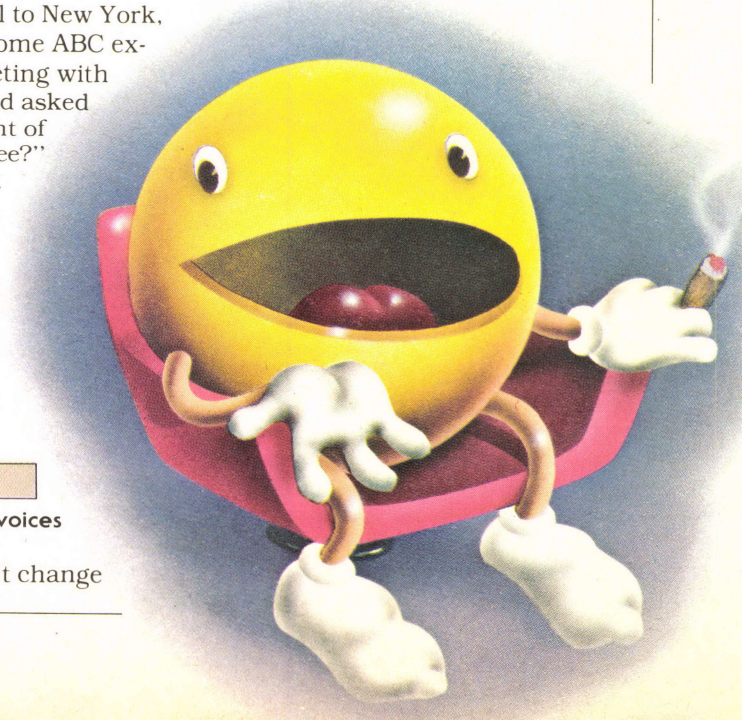
ᗧ: Nope. And I don't change my voice either. I go in, talk like I normally do, if you call that normal, and I go home. But some of the other actors kill themselves. Chuck McCann does the voices of all the ghosts and he's in there making sounds and doing unbelievable noises. I just come in and talk. It's really crazy.

**EF: Did you ever think your voice would be such an asset?**

ᗧ: If it had been up to my mother, I'd be talking like John Houseman. When I was a kid, all I remember is being dragged to throat doctors. They were always looking inside my mouth. I always wanted to put a frog down there so they would leave me alone. Now when people make remarks about my voice, I tell them I have a dot in my throat. You've heard of people who have Golden Voices? I have a Yellow Voice.

**EF: Have you recorded all the shows for this season?**

ᗧ: Are you kidding? As the poor writers, chained to their cardboard desks turn out the scripts one by one, they send out all-state alarms for us and we, obedient little invisible dots that we are, drop everything—our children, our drawers, our surgery—and race in there to make all those strange sounds. It's a helluva way to make a living. My mother is very embarrassed having to introduce me as her son, the dot.□



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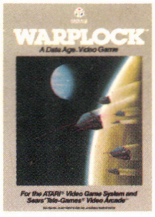


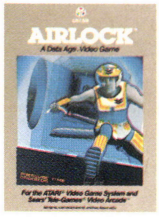

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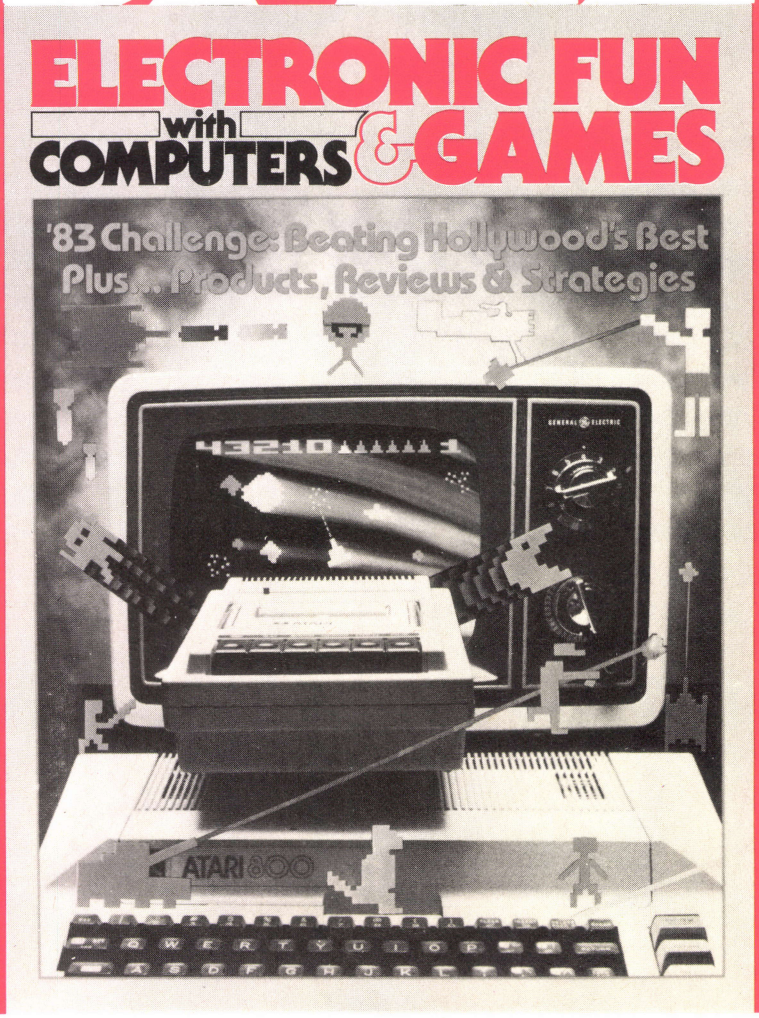


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a show of hand helds

# A gorilla on your table and a pocket dragon

Who says you can't take it with you?

You've seen the commercials—"Bring the arcade action home."

## COLECO

### Donkey Kong

They're talking about Coleco's *Donkey Kong*, a $60 portable, self-contained version of the popular arcade game. Really, Coleco has done marvelous things with the "mini-arcade" concept. First, they make games that look exactly like itty-bitty models of the real thing. Second, thanks to the use of super-sophisticated technology, including arcade-style computer chips, their games actually play very much like the life-sized machines, right down to joystick and jump button controls.

*Donkey Kong* is, in fact, Coleco's third tabletop arcade game, preceded by *Pac-Man* and *Galaxian*. Like the others, the eight-inch game has a four-way joystick on the left front panel, an on/off switch in the center, and a start game/jump button on the right. The machine runs on four "C" cell alkaline batteries or Coleco's Perma Power Battery Eliminator/AC adapter (sold separately). There are two game variations, each scoring in the same manner as arcade *Donkey Kong*.

Variation one follows the arcade's first screen, the Ramps, where Mario the Carpenter must save the girl he loves because some kinky ape has kidnapped her and taken her to the top of a steel fortress—actually an unfinished building that our poor, unsuspecting hero was working on when his enemy appeared.

Using the joystick control and jump button, players must maneuver Mario to the top of the building in order to get the girl. As in the arcade version, the ape impedes the carpenter's progress by throwing fire balls and barrels (worth 100 points when jumped over). Mario jumps, climbs ladders, runs and walks to avoid these dangerous obstacles.

Hot new portables from Mattel include *Dungeons & Dragons™ Computer Fantasy Game*, inspired by the original Dungeons & Dragons board game produced by TSR Hobbies, Inc., and *Star Hawk*, a self-contained version of the Intellivision video game *Star Strike*.

Both games are part of Mattel's Action Arcade Series which includes a total of 13 games for 1982. Each moderately priced game (from $20 to $40) combines popular arcade themes with excellent graphic displays and multi-level play. Also expect realistic sound effects, as well as joystick or pushbutton controls, from these latest Mattel mini-arcades.

The *Dungeons & Dragons Computer Fantasy Game* costs $22.95 and *Star Hawk* costs $26.95. Other Mattel releases in the Action Arcade Series include *Speed Freak, Competition Football, Long Bomb Football* and *Armor Attack*. In general, you'll find these games a satisfying buy with enough challenge to keep them from becoming closet games. □

## MATTEL

### Dungeons & Dragons, Star Hawk

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# It's a bird, it's a plane, it's... Super Atari

*It was the biggest top-secret operation this side of the Manhattan Project . . . guarded more carefully than Fort Knox, with more security than the Queen of England's bedroom. It was under development for more than two years, spoken about only in hushed whispers and known variously as the "System X" and my personal favorite, the "Super Atari." But when all the smoke cleared, what was left was the long-awaited Atari 5200 Home Entertainment System—5200 being exactly twice the model number of the original Atari Video Computer System that first came on the scene back in 1977.*

*Atari first demonstrated prototypes of the 5200 almost a year ago.*

## By Marc Wielage

Atari took the wraps off the current model 5200 this past summer at a June trade show. Most of the Atari engineers and PR people we talked to were bursting with pride about their new system, proclaiming it to be "the state of the art by which all other game systems must be measured . . . with audio and video quality comparable to arcade video games." You can bet we were nearly trembling with excitement at hearing all this hoopla and immediately set about the task of obtaining a 5200 for a real, nuts and bolts, hands-on evaluation.

### THE CONSOLE

Sleek, clean and modern. That describes the appearance of the new 5200 game console, which resembles the wedge-shaped Triumph TR-7 sports car. It's a snazzy-looking black and silver unit about 13x13x4 inches, in sharp contrast to the slightly larger and more mundane plastic mahogany VCS. A top-mounted, smoked-plastic lid opens on hinges to reveal an ample compartment for the two controllers, which plug into any of four 15-pin jacks at the front of the console. VCS owners will be pleased to find that the console doesn't have a single game control, except for the light-touch on/off switch, which also automatically switches the RF output from "game" to "TV."

Inside the console are over a dozen major integrated circuits and a new proprietary microprocessor, along with 16K of random-access memory—more than equalling the capacity of Intellivision—to generate remarkably improved graphics and faster game action. While Atari spokesmen were understandably guarded about specifics, they did give us the impression that they've been able to provide the 5200 with the basic circuits and capabilities of their acclaimed 400/800 computers, only without a keyboard.

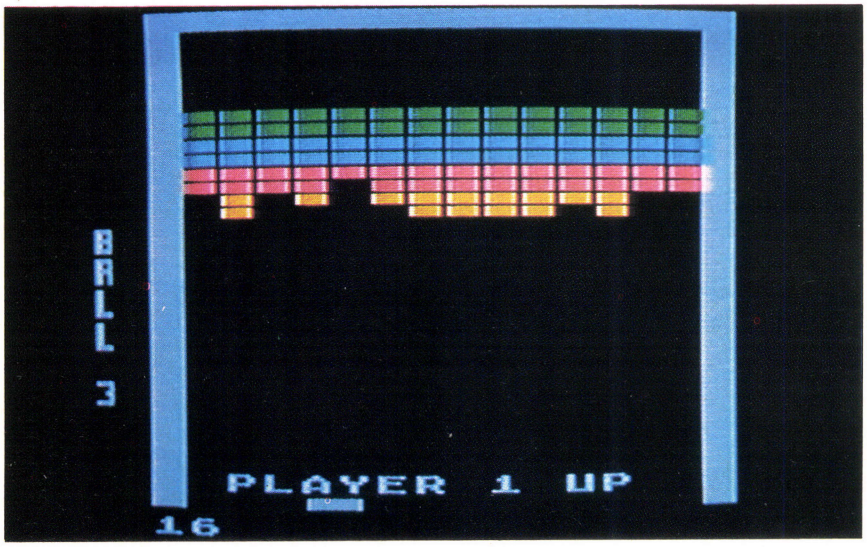
The back of the console has a channel two or three RF modulator switch, along with a 10-foot cable

that connects to its unique antenna switch box. Atari's taken a really imaginative approach to the perennial problem of how to get rid of the spaghetti-like tangle of wires that inevitably results with most video games, Atari included. With the 5200, this problem practically disappears. They've figured out a way to piggyback both the video signal and 9-volt DC power on a single 10-foot cable. The cable plugs into the phone jack located on the back of the antenna switch box, while the transformer plugs into the switch box directly. This switch box provides both a 300-ohm and a 75-ohm output to feed to your television set. This is a nice touch over the single 300-ohm switch box that is included with all other games.

The antenna box provides fast, fast relief for those who are fed up with fumbling around the back of their sets every time they want to stop playing a video game and start watching a TV show. With the Atari 5200, all you do is turn the game off—the RF switching is automatic. And if you want to take a breather and watch TV in the middle of the game, you do that by manually switching the box to "standby."

We found installation of the 5200 a snap, thanks to the in-depth instruction manual, which spends more than half of its 24 pages patiently explaining hookup pro-

**The Pac-Man cometh . . . again**—the 5200 adaptation even has the humorous intermissions found in the arcade game. Other games for the Super Atari have also benefited from the improved graphics capabilities such as *Space Invaders* (top right), *Missile Command* (bottom left) and a new, improved *Soccer* (bottom right).




cedures, covering just about every type of antenna/TV set combination imaginable. We figure anyone with the intelligence of a 10-year-old will have no problem—provided you can find a 10-year-old kid to hook it up for you.

## THE UNIVERSAL CONTROLLERS

What would happen if you crossed a VCS joystick with an Intellivision controller? That pretty much sums up the design of the new Atari universal controller, which is a sleek, comfortable handheld unit. It's designed with the best features of the old joysticks plus a few new ones that add a lot to getting the most out of fast-paced game play.

The middle of the controller has a 1½-inch joystick, fitted into a neat rubber skirt. Down below is a 12-button array that resembles the touchtone keypad of a telephone. The two extra non-numbered buttons, one green and one red, are used for selecting the number of players and the game variations, respectively. Most games are supplied with plastic overlays, which clip into the keypad of the controller.

As every experienced gamer knows, the key to any video game, aside from the software, is the controller. It's on this point that I have some good news and some bad news. The good news is that the new universal controllers look just great, with a nice solid feel. They've got just about the right size and weight to make holding them in either hand quite comfortable, even for long-term use.

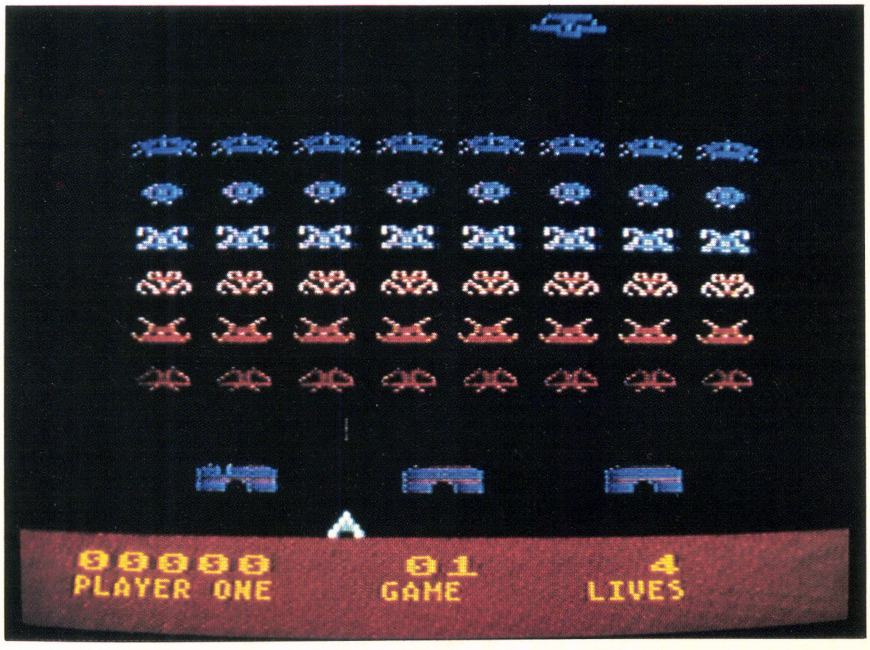
The bad news is that experienced VCS gamers may find it hard to get used to the new Atari joysticks, which are the non-centering variety. This means that when you let them go, they don't automatically snap back into center position.

I also found that the new joystick tends to be a little too sensitive at times, occasionally causing the player to overshoot an intended target. Of course, this is the kind of thing we think anybody can get used to in time.

Despite all these minor criticisms, most people won't have any trouble adapting to the new super controllers in a matter of a few hours. Having tried out most of the currently available standard joysticks and controllers from Astrocade, Coleco, Intellivision and Odyssey, I'd say that the new 5200 represents a significant step towards the ultimate game controller.

## THE FUTURE OF THE 5200

While only a scant five games were available for evaluation at presstime I came away with the opinion that a lot of the 5200's potential still remains untapped. The only game that we've seen so far that




**Space Invaders (right): no invisible invaders.**
**Super Breakout (above): more frustrating than fun.**

begins to showcase the 5200's razzle-dazzle abilities is *Star Raiders*, which provides no less than three different playfields at the press of a button.

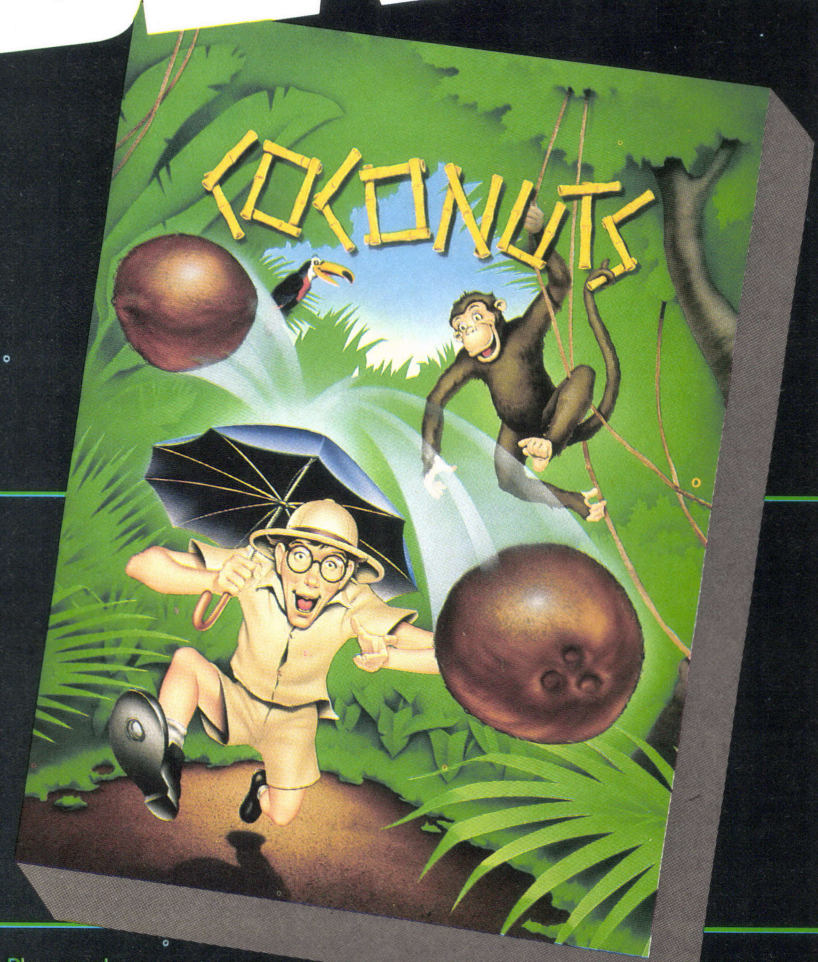
An Atari spokesman admitted that while the selection of 5200 games I've evaluated so far may seem tame, the carts they plan to release over the next few months should impress even the most cynical observers. In addition to super-versions of old favorites like *Pac-Man*, *Asteroids*, and *Defender*, they'll be bringing out *Centipede*, *Qix* and *Tank*, plus sports games like *Soccer*, *Football* and *Baseball*, all of which they promise will be light-years beyond today's Atari VCS games.

Best of all are the numerous options planned, which include a bona fide arcade-style trakball controller and a VCS-compatible adapter for playing older games on the new console. Each of these should be available by next summer for around $50. They also have a voice synthesizer module under development for release later in the year.

And that brings up an important point: Where does the Super Atari leave all the millions of old VCS owners? Fear not. We talked to marketing vice president Ron Stringari, who told us that they don't expect the 5200 to make the earlier VCS obsolete. "We like to think of it like the auto market, where some people want Ford and others want Mercedes. Now, we've given people the choice between two types of home game systems in that same spirit." He sees the 5200 as being the next step in home entertainment, appealing to a more sophisticated market as well as owners of the previous VCS, and promised that Atari will continue to support the VCS with many new and exciting games for years to come. Unfortunately, we still won't be able to play the new 5200 carts on the old VCS, but that's one of the prices of progress.

*Continued*


BEAT IT!

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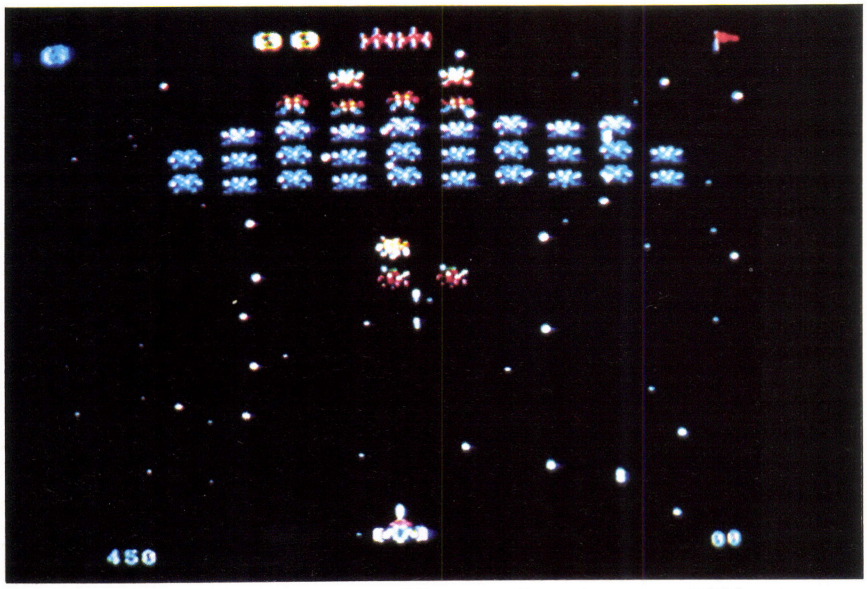



**GALAXIAN: With 32 attack waves, it's a must-have for every 5200 owner.**

One of the chief differences between the Atari 5200 and every other video game is the size of its game cartridges, which are nearly twice as big as any others currently on the market. The carts I evaluated contained up to 32K of ROM in the form of a half-dozen or more IC chips—the most complex game carts I've seen, similar to those made for use with Atari's computers.

## SUPER BREAKOUT

*Pong* lovers unite! You would think that *Breakout,* easily the simplest of all the currently available Super Atari games, would hardly be able to hang on to its popularity in these days of multiple screens, dancing aliens and dazzling explosions. And yet *Super Breakout,* the current incarnation of that classic game, remains one of the top sellers for the VCS today.

Enter the 5200's *Super Breakout,* which could appropriately be called *Super Super Breakout,* with graphics and movement that are a quantum leap ahead of the old version—though with some limitations as well. In this updated game, 14 rows of eight distinct bricks are provided, in colors similar to those of the earlier one—yellow, red, blue, and green at the top. There are the four different variations provided: standard *Breakout,* Progressive (with parallel moving walls), Double (with two simultaneous balls, released one right after the other), and Cavity (which has two extra bouncing balls encased inside its wall).

Progressive became my particular favorite, mainly due to the never-ending supply of walls that slowly crept forward as the current wall bit the dust. Unlike all the other versions, the score potential with Progressive is infinite. I also found both Double and Cavity to be exceptionally challenging, each with a double paddle and multiple balls, adding up to almost frenetic excitement.

Several on-screen readouts are provided to let you know which player is up, how many points have been scored, and how many balls you've used up during your turn. At the end of the game, the screen also gives you an opinion of your gamesmanship, whether you want it or not—good, fair, or "oops," depending on your final score.

Unfortunately, there are several major limitations with the 5200 version of *Super Breakout* that prevent it from achieving super hit status. First, there's no difficulty switch for adjusting the size of the paddle manually, allowing experienced players to start off with a small paddle. The biggest pitfall has to be the 5200's universal controllers, which are designed to combine a paddle, joystick, and keypad into one handy box. I think for most people, getting used to twisting the non-centering joystick will be an almost herculean task. The VCS paddles are much better suited for this game. I was also a little disappointed in the *Pong*-like sound effects provided by the 5200's *Super Breakout,* which aren't nearly as entertaining as the multiple musical notes heard in the VCS version. Why the sound effects would be lacking in this, a more expensive and supposedly more complex game, is hard to figure out.

All things considered, I often found the 5200 version of *Super Breakout* to be more frustrating than fun and not quite as enjoyable as the VCS version, despite the latter's simplistic graphics.

## SPACE INVADERS

On the other hand, if you liked the VCS Space Invaders, you'll *love* the 5200 version. It offers much-improved color, graphics, sound and you are assaulted by a whopping 48 invaders.

A dozen variations provide increasingly challenging games, most of which involve deadlier alien missiles and fewer laser cannons (referred to as "lives" on the on-screen readout). We were a little disappointed that some of the VCS variations are omitted, including the "invisible invaders" and "moving shields" games.

Like the previous VCS version, the 5200 *Space Invaders* shares a similar strategy to the arcade game. I found the best course is to zap the left and right-hand rows down as quickly as possible, followed immediately by the front three rows; this will make liquidating the remaining men a lot easier. Otherwise,

their increasing downward speed will make it nearly impossible to get to the end men before it's too late. Also, keep in mind that the aliens' shots are usually aimed at your position when you fire the cannon; moving just an inch right after you've cleared out a row of creatures should add to your overall life span. I also found that the Command Saucer isn't worth going after by itself; instead, you're better off timing your shots so that you can shoot it right after polishing off a row of aliens. And don't sweat it if you miss, since the important thing is to concentrate on the aliens at all costs. Because of their sheer number, they're a lot tougher to handle than those in the VCS version, so watch out.

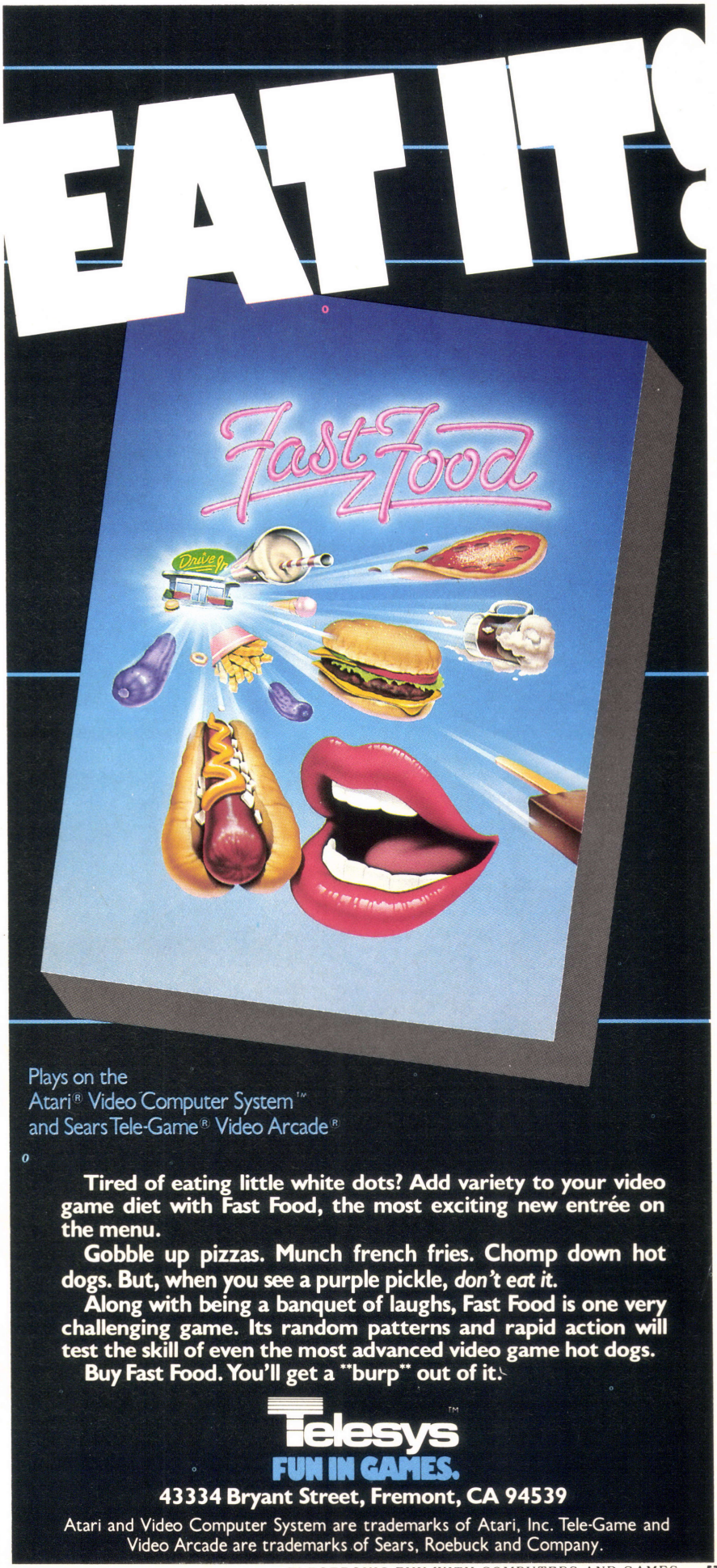
All in all, I'd consider this latest version of *Space Invaders* a welcome addition to the 5200 arsenal. Even if you're already a champ at the VCS version, my bet is that the 12 levels of difficulty in this new one will be more than enough to keep you challenged for many hours to come.

## GALAXIAN

Anybody familiar with either World War II or the movie *Tora, Tora, Tora!* will no doubt remember the famous kamikaze attacks by Japanese Zeros on our battleships in the Pacific. Now, the battle cry is "Atari, Atari, Atari!" That's the basic idea behind the 5200 version of *Galaxian*, which is a scaled-down home version of the arcade classic.

The Atari designers tell me that there are 32 attack waves in this game, which should be more than enough to challenge even the most experienced gamer. While I never made it quite that far, only a few hours were enough to convince me that *Galaxian* is a must-have for any 5200 owner.

My only complaint is that your spaceship should be able to move up and down in addition to side to side. This is a feature of *Gorf* that would have taken *Galaxian* one step further.□

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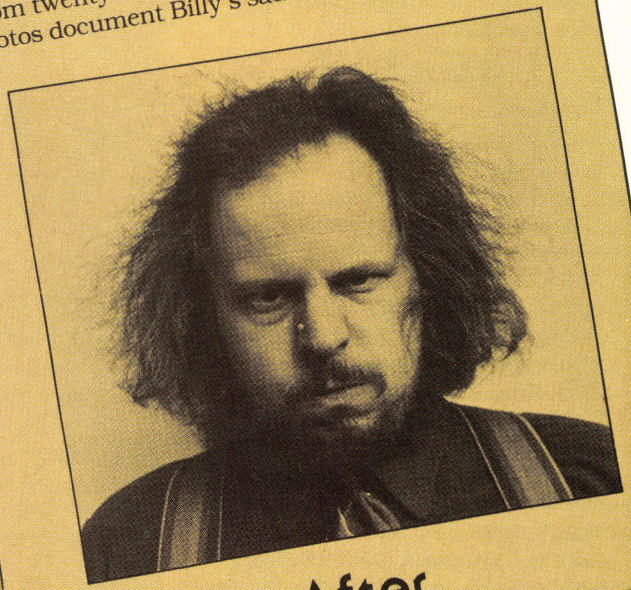
# I HATE video games!

## THE VIDEO GAME ADDICT

Billy Hewitt was a normal, American kid until his so-called friends took him to a video game parlor. In just a few short weeks, the cost of his habit rose from twenty-five cents a day to a shocking fifty dollars and twenty-five cents. These photos document Billy's sad story.

Before



After

*From THE OFFICIAL I-HATE-VIDEO GAMES HANDBOOK, by Emily Prager. Illustrated by Frank Morris. Text Copyright © 1982 by Emily Prager, Illustrations Copyright © 1982 by Frank Morris. Reprinted by permission of Pocket Books. Photographs by Michael Sullivan.*

SPELIHL
EXTRA
2x 3x 5x
PLAYER
6400
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9

Screen plays

# Trounce Robotron: Save the last human family

**By Michael Blanchet**

*Robotron*, a beautifully executed blending of the best play principles of *Berzerk* and *Defender*, manages, nevertheless, to emerge as an original. Your first confrontation with *"Robo"* will probably last thirty seconds, if you're lucky. Whether you are totally turned off or completely hooked, here are a few observations and tips on how to save the world from mechanical demise.

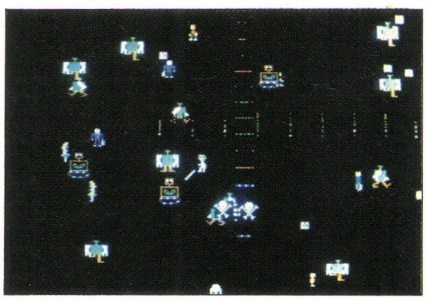
The bad guys are plentiful in *Robotron*. In fact, in later stages of the game they literally occupy every square inch of the playfield. There are six kinds of bad guys to look out for. Five of these can be destroyed.

The dumbest of the enemy forces is the Grunt. Wielding no weapon, he merely follows you about the playfield at a lackadaisical pace. Collision with one of these will cost you one game life.

Spheroids, on the other hand, are potentially more deadly. Appearing first as a red circle, an unchecked Spheroid gives birth to a fold of Enforcers. Easily identified by their fire hydrant shape, Enforcers hurl Enforcer Sparks at you. Make the Spheroids your top priority target at the outset of each round. Once destroyed, they are unable to unleash Enforcers.

Hulks are the one nemesis that you cannot destroy. As they lumber about the playfield, Hulks indirectly search for humans to squash. A burst from your laser gun will only serve to deter a Hulk from its present course. If pummelled continually for any length of time, a Hulk will eventually change his direction and continue on his random search for humans to vaporize.

One key point to remember is that each round of the game ends when the last robot (except for the Hulk) is destroyed, regardless of the human forms left unsaved. Make it a point to save every human before blowing away the last robot. Easier said than done, you say? Well, kill the Spheroids first. Those red rings are a cancer just waiting to happen. Once the Spheroids are out of the picture, simply blow away the Grunts en route to the humans.



**The world in 102 years?**

A good game becomes a great game once you learn the ropes of the fifth round. The sinister Brains, as well as the all too familiar Spheroids, will be your primary targets. When your man materializes at center, quickly spray the immediate area to give yourself some running room. Now head to the section of the screen where the humans are most densely bunched.

The snaking cruise missiles that the Brains fire at you can be dealt with in one of two ways: shoot them or elude them. The latter is done by simply running away. A cruise missile has a predetermined life span. Eventually it will fizzle out.

One technique I have found effective goes something like this: Patrol one side of the playfield while straffing the remaining portion with laser blasts. Before your man materializes at center screen, determine which side of the playfield is the most populated with humans. Use your laser to clear the side you have selected, then promptly move in and scoop up those helpless humans. As you move vertically, fire toward the opposite side of the screen. By putting some distance between yourself and the remaining Brains, you afford yourself precious time to stop the cruise missiles and Progs.

Game lives are easily lost in the fifth round, so don't get discouraged. Work the board in sections as I have explained. Saving ten or twelve humans is a good trade-off for the game life or two it may cost.□

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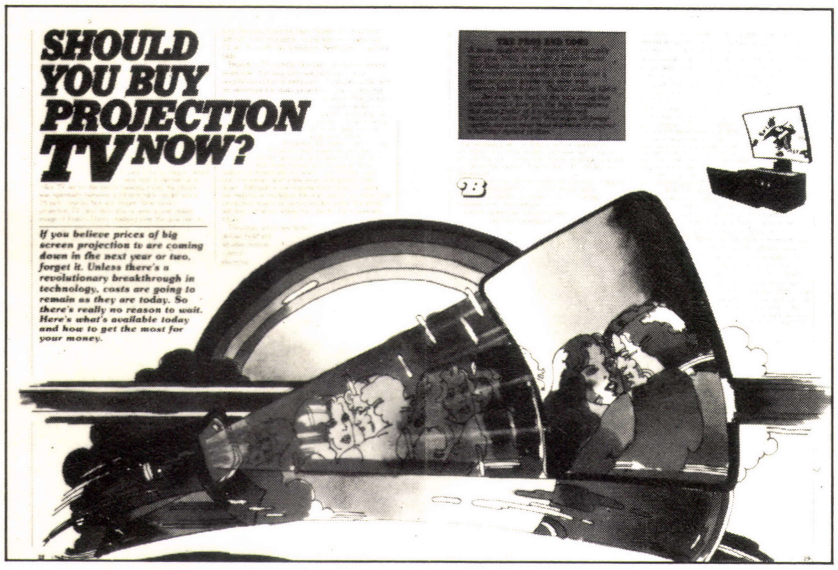


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# Indiana Jones in your living room

## RAIDERS OF THE LOST ARK

*Atari/Atari VCS*

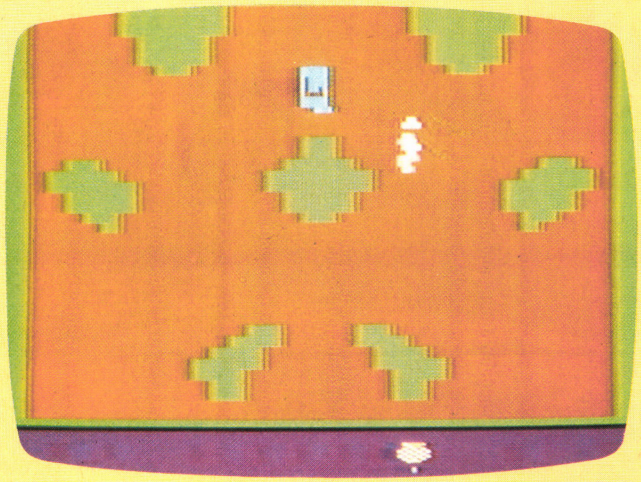
**By Michael Blanchet**

In the here today, gone tomorrow world of video games, one fact has rung true consistently. Manufacturers are learning that the way to a kid's heart (and to dad's pocket) is to offer a product named after a hit movie or arcade game. But a good movie does not always a great video game make.

*The Empire Strikes Back* was recently—and rather adeptly—made into a home video game by Parker Brothers. *Empire* was surely one tough act to follow. But Steven Spielberg, the master storyteller of the Pac-Man generation, quickly put *Raiders of the Lost Ark* in the box office hall of fame.

Using the movie as a yardstick, one might expect Atari's VCS translation of *Raiders* to be a fast, thrill-a-minute exercise in microprocessor mayhem. Well, not quite.

The cartridge, which according to Atari, utilizes a new, powerful computer coding system, portrays Indiana Jones more as a weary chap in need of a good night's sleep than a reckless adventurer. The biggest stumbling block encountered when any game attempts to recapture any adventure/role playing situation is the absence of continuity and the spontaneous unfolding of action. I would have preferred that Atari took *one* scene from *Raiders* and made it into an exciting game (as Parker did with *Empire*). Instead, in the game of *Raiders*, you steer your Indiana Jones along 13 separate adventures to battle snakes, nazis and assorted other evil doers. In this game, Atari has captured the scope, but not the



excitement, of *Raiders* in an adventure format.

The one saving grace of *Raiders*—and other role-playing games—is the complexity and interest level. Video games, sad to say, are much like supermarket produce. The shelf life of a game depends on the time it takes to play with some degree of mastery. Simply put, it takes longer to get the knack of *Raiders*.

The graphics are basically nondescript. The only distinguishing feature of Indiana Jones is his flappy Panama hat. Outside of this, he is little more than a stick figure. Dietrich, the Gestapo heavy, looks like a silhouette cut out of cardboard.

In comparison to Activision's first attempt at a role-playing game, *Pitfall*, *Raiders* barely qualifies as a must-have for your VCS library. One wonders why Atari couldn't at least come close to doing *Raiders* the justice it deserves. One thing is true—a good movie does not always a good video game make.

*Michael Blanchet is the author of* How To Beat The Video Games.

# ASTROSMASH/ASTROBLAST ★★★

*Mattel/Atari VCS*

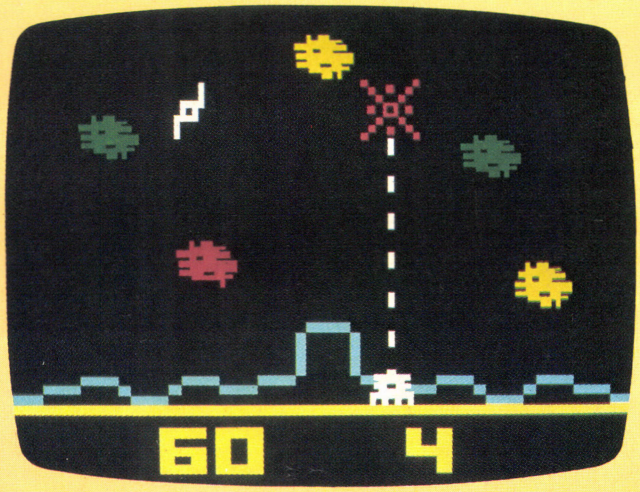
**By Suzan Prince**

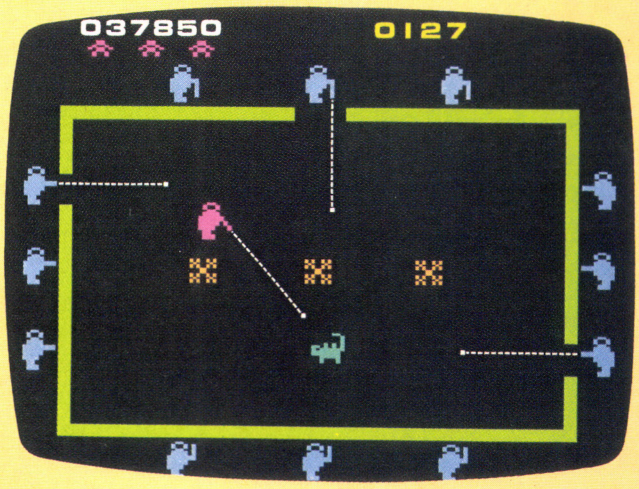
Mattel prides itself on raising the intellect of game systems. First they gave us what they call Intellivision Intelligent Television and now with the M Network series, it could be said they're trying for *Smartari*. The hoped-for result: Mattel game complexity with Atari joystick capability. It is something of a shotgun marriage, but the VCS owner should derive some bliss from the arrangement.

A cartridge that illustrates the positive-negative aspects of the M Network is *Astroblast*, a born-again version of *Astrosmash*, one of Intellivision's better non-sports cartridges. *Astrosmash* combines the visual elements of *Asteroids* and *Space Invaders* in a fairly original and graphically colorful game.

In *Astroblast* you are given ten laser bases with which you are supposed to shoot falling rocks, both big and small. When hit, the former often break up into two of the latter, each worth twice as much when hit. Both the big and little rocks' point values increase as the game progresses. While you gain points for rocks destroyed, you lose a like amount for those that fall. Unlike *Astrosmash*, your score cannot fall below zero.

*Astroblast* is a decent enough adaptation of *Astrosmash* but there are flaws. Even the slower variation starts too fast and sets a hard-to-keep-up-with pace. The spinners, which are neatly spaced throughout *Astrosmash*, are nearly non-existent during the first 1000 points. Then a barrage of them is thrust upon you upon reaching that plateau. The useful hyperspace option of the Intellivision game is missing and this takes away some of the excitement attached to the pulsar chase. Automatic fire is still available.




# ROOM OF DOOM ★★★★

*CommaVid/Atari VCS*

**By Walter Salm**

If you've got claustrophobia, this might not be a game for you. You're shut in a room that has no doors but has lots of secret portholes that keep opening up so nasty guys can shoot at you. And to make matters worse, they sic their pet hydra-headed monster on you.

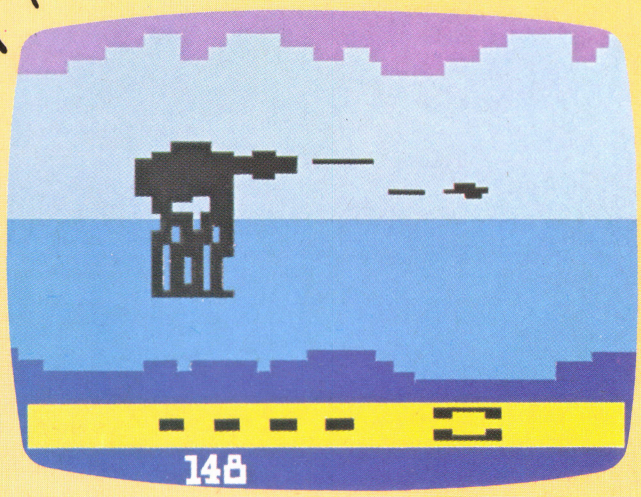
You can shoot these nasty gunmen, but you have to get your bullets to go through the portholes (when they're open) while avoiding the bullets coming out of those same openings. In the meantime, old Hydra-Head the dragon is chasing you, shooting at you and trying to touch you (his touch is fatal). You can shoot him, but it only stuns him for a few seconds and then he resumes the chase. And if the clock starts to run out on you, the dragon becomes immune to your bullets.

The only way out of the room is to shoot all of your enemies through their portholes. Then you find yourself in a second room of doom—even deadlier than the first.

This game has 64 variations and a wide range of difficulty levels and variety of challenges in game play. Some are much too difficult for all but the most advanced player. For the beginner, game two is probably the easiest; the portholes stay open, which gives you a better-than-even chance to shoot back at your attackers. Other variations provide diagonal fire, high-speed (double speed) games, joystick-guided bullets, stationary or moving fire, repeat fire and choice of starting room.

This game is a real challenge—both to your marksmanship and your staying power. Like any good video game, it requires practice and patience to get through all four of those rooms of doom and to rack up some high scores. You get five lives per game, so go to it and shoot those bad guys! They deserve it.

*Walter Salm has been writing about electronics for 25 years and is the author of nine books.*




## THE EMPIRE STRIKES BACK ////

*Parker Brothers/Atari VCS*

**By Dan Gutman**

Some video games you like right away. Some grow on you. Some never make it. *The Empire* is the type of game that you start out hating, then you learn to love it. It quickly becomes a very pleasant addiction.

You are Luke Skywalker, patrolling the ice planet Hoth. Your mission is to kill the Empire's Imperial Walkers as they slowly advance on your power generator. You can fly in all four directions and fire missiles horizontally. The problem is that when you hit a Walker with your missile, it doesn't die. It doesn't even flinch. In most games, you hit something once and that's the end of it. But in *Empire*, you've got to squeeze off 48 hits before destroying a Walker!

When I first got the game, it really bothered me that I had to hit the Walker 48 times while he could wipe me out with four or five hits. But gradually I found myself coming back to the game again and again. Each time I did, I gained more control of the ship, learned how to avoid the enemy fire and score more points. I'm at the point now where I have a bunch of different game cartridges that need to be reviewed, but all I want to do is play *The Empire Strikes Back*. I'm the type of person who cares more about the challenge of the game than anything else and *Empire* is a gripping, challenging game that literally leaves your palms sweating.

This is not to say the game lets you down graphically. The brilliant colors somewhat resemble an Activision game and it is a sight to behold when the Walkers explode. The joystick gives you very tight control over your ship. If you like exciting, fast-action space games, you'll love *The Empire Strikes Back*. Parker Brothers is making a strong entrance into the video game software field.

**Don't destroy the first Walker—hit him until he turns light grey, then destroy all of the others. This will slow down all the Walkers.**

*Dan Gutman is the managing editor of* Electronic Fun with Computers & Games.

## COMMUNIST MUTANTS FROM SPACE ///

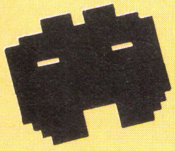
*Arcadia/Atari VCS with Supercharger Unit*

**By Walter Salm**

This action-packed update on the *Space Invaders* theme finally answers the burning question: Which came first, the mother mutant or the egg?

Communist mutant warriors hatch from rectangular eggs which are laid in space by the mother mutant at an alarming rate. She's very fertile. The eggs are replaced just about as fast as you can shoot them.

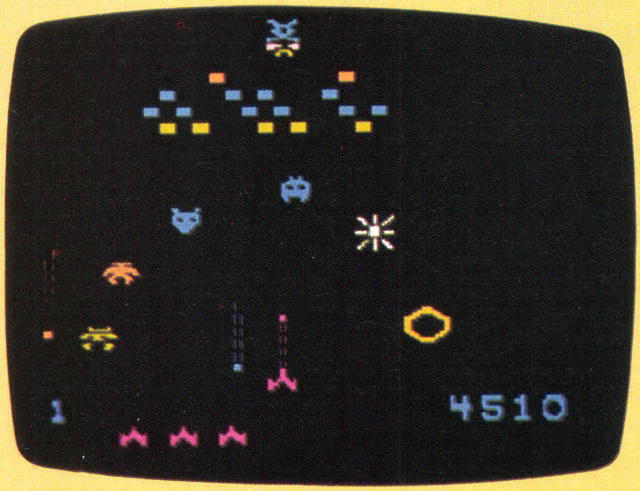
To play, you move your cannon (you start with four—one on the firing line and three in reserve) to dodge bombs and commies while you shoot at them. The mutants not only sing atonal, new wave songs as they descend, but they descend in a very disorderly fashion—zig-zagging, flying sideways and retreating only to advance again without warning.



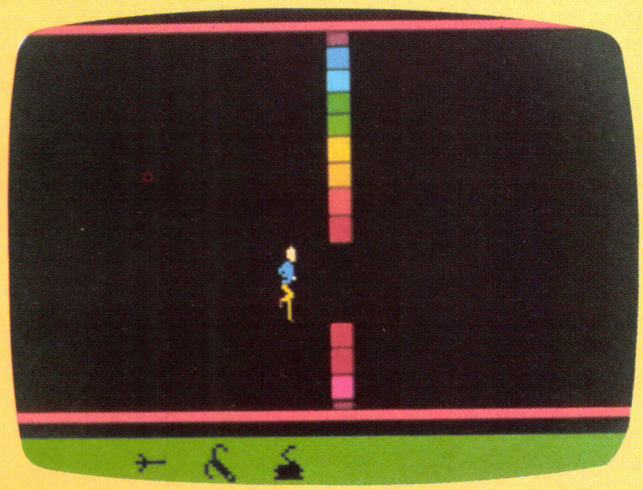
They come at you one at a time at first. This is not too bad. But after a while, they start hatching in droves. At this point it is best to activate your force field by pulling back on your joystick. Before you get too smug, it should be noted that the shield only lasts for a few seconds and can be used just once during each wave of attackers. Be judicious.

The shield, by the way, doesn't protect you from certain bombs. These look like unhatched eggs and they swoop down on you suddenly at breakneck speed.

There are 288 game variations which, if you manage to keep one or two cannons in reserve, you can play almost endlessly. You get a free cannon with every odd-numbered wave of eggs that you finish off.




**Fire at the Mother Ship. Concentrate on knocking her off right away. This will effectively prevent her from laying more eggs.**



## SWORDQUEST—EARTHWORLD, FIREWORLD ★★★★

*Atari/Atari VCS*

**By Raymond Dimetrosky**

Do you remember when *Superman* and *Adventure* were first introduced for the VCS? Do you remember thinking that it was incredible for games like those—which require a great deal of thought by the player, but not an expensive computer—to exist? And do you remember thinking that it would be great if Atari created more games like those?

Well, if you felt that way, you were probably excited when *Haunted House* was introduced. And you might have questioned whether the VCS had finally reached its maximum level of sophistication. Well, believe it or not, these two new adventure games make the previous games seem like soggy Rice Krispies.

*EarthWorld* and *FireWorld* are two cartridges in a series of four *SwordQuest* adventure games. The games are outstanding for a number of reasons. The graphics are excellent from the first scene on. Even before you begin to play. *EarthWorld* displays a multicolored sword that rapidly changes colors. When the game begins, you see that you are represented by a little man who is surprisingly detailed. (It's a lot easier to feel that you're actually a part of the game when you're represented by a human form, than when you're represented by a square, as in *Adventure*.) Our man is in a maze of rooms. When he walks from room to room, the screen changes in a way that has to be seen to be believed. Just so you don't think the games are simple, by pressing the red button on the joystick, we seem to be transported to a room within the room. Many of these rooms contain secret treasures. You are allowed to "carry" six of these treasures. You gain clues to help solve the puzzle by placing the correct combination of objects in the proper room. And just to make the picture complete, at times, to continue on the trek, you have to play games within the game. For instance, you might have to catch items in a basket or climb to the top of a chamber. It's this last feature that makes these adventure games truly special. And just in case you need some motivation to get into these adventure games, Atari is offering a $25,000 prize to the first person who solves each game.

The *SwordQuest* adventure series succeeds in demonstrating how incredibly far video games for the VCS have come. Of course, these games are not for everyone. You have to be into the "thinking" games to enjoy this series. Chances are, if you liked *Adventure* and *Haunted House*, you'll love *EarthWorld* and *FireWorld*.

**Find the key and pick it up. It allows you to move sideways as well as up and down.**

## PHASER PATROL ★★★★

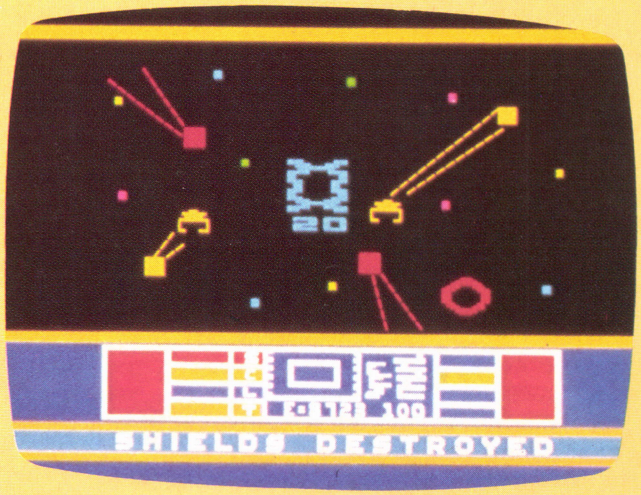
*Arcadia/Atari VCS with Supercharger Unit*

**By Walter Salm**

How much is it worth to you to have computer-quality graphics on your TV game screen? Well, Arcadia thinks it should be worth $69.95, the cost of their new "Supercharger," and you get one game with it, *Phaser Patrol*.

This space shoot-em-up resembles Activision's *Starmaster*. The game display shows a pilot's-eye view of the starfield outside the ship with a gunsight box in the middle. Right under the box are numbers that are constantly changing. They tell you how far away the alien warship is.

If you get the alien in your sights, the sighting box will change color. If you fire at the instant of that color change, your spaceship's computerized fire control sys-



tem will lock onto the enemy ship and you will be able to zap him most of the time.

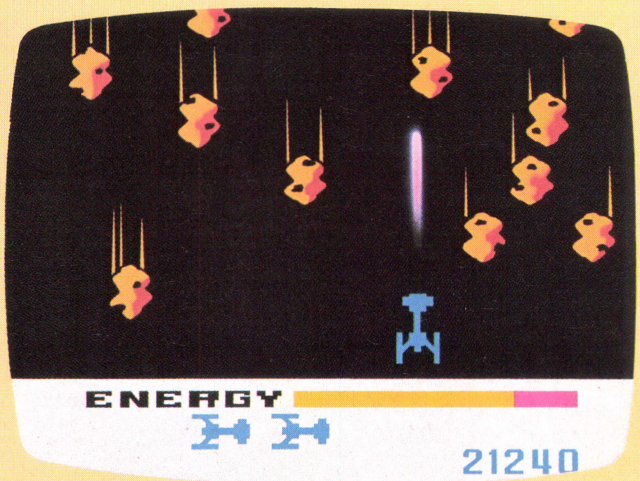
Directly below the starfield view is a radar scanner screen. On its left is a status board that tells you how your radar, computer, shields and torpedoes are doing. If you take a bad hit from an alien and something gets damaged or destroyed, a display on the bottom of the screen tells you what has happened, in addition to changing the color on the status board.

The left difficulty switch turns off your starfield view and replaces it with a map of the sectors of the galaxy that you're patrolling. Some will contain outlines of alien ships (meaning there are aliens in that sector) and most others will contain an "X," meaning "unknown." You have to decide whether or not to venture into the unknown. To get from one section to another, use the hyperspace jump. If you put the cursor on a new sector, a screen display will tell you how much energy the hyperspace jump to that sector will use up. Try to conserve energy by taking short, fuel-efficient hops.

As you get better at your piloting, shooting and energy conservation, the game automatically gets more difficult, adding to the challenge.

I give this game very high grades on all levels.

**When jumping from one sector to another, go to the ones that use the least amount of energy.**




## MEGAMANIA ♪♪♪

*Activision/Atari VCS*

**By Walter Salm**

This new game is billed by Activision as "A Space Nightmare" because in it, you are attacked by commonplace, everyday objects such as hamburgers, bow ties and radial tires. After playing this game, you will never again feel safe in a McDonald's or a Firestone dealership.

In Activision's description, you are flying through space in a neat little rocket ship and are assaulted by wave after wave of very bizarre objects (see above) which are trying to wipe you out. You have to shoot them before they shoot you or touch your ship. You also have to keep an eye on the fuel gauge located at the bottom of the screen. The gauge goes down gradually with time, although I've yet to use up my allotted fuel before getting zapped by the nightmare attackers. The fuel is replenished whenever you finish off a wave of predators or if you get zapped and a replacement ship is called up. You get a total of four ships which can move horizontally and for every 10,000 points you amass, you are rewarded with another ship.

The attackers come at you in the following order: pink hamburgers, yellow cookies, green bugs, pink radial tires, diamonds, steam irons, bow ties and celestial dice.

All of these attackers move in random, almost jerky patterns across the screen and with each jerk, they come closer to your rocket. If you don't get the bottom attackers, you can try to run so they don't touch your ship. But you can run out of screen space and then they've got you and that's when you lose your ship.

The game is both ingenious and frustrating. There's none of the predictability of *Space Invaders;* it has lots of excitement and requires lots of practice. Because the flying space objects move in such a jerky, random way, it's very hard to develop any particular strategy, except to shoot 'em and avoid 'em and get in a lot of play time before you challenge any of your friends.

**In wave one, get as far to the left as possible. Steer the bullets to the right.**

## MICROSURGEON ♪♪♪♪

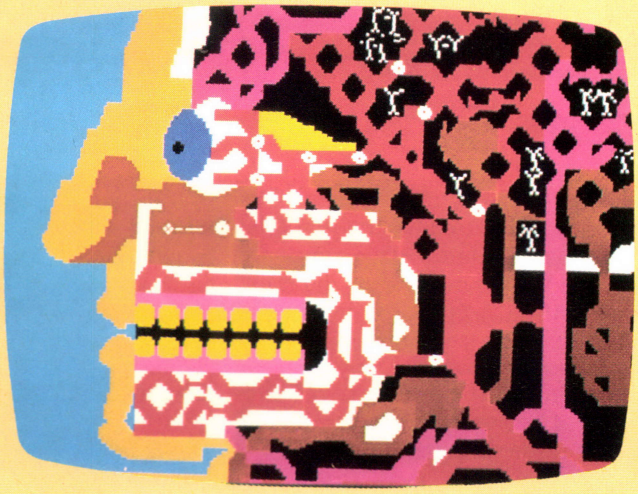
*Imagic/Intellivision*

**By Norman Metzger**

Want to be a doctor but can't stand the sight of blood? If so, *Microsurgeon* is for you. You can really get into this game—into the brain, the lungs, the heart and other vital organs. You plug in the cartridge and, within seconds, you are set up in a lucrative practice without the bother and expense of medical school. Whether you're fighting brain tumors, kidney stones or insidious viruses, you don't get bored. I got almost the same thrill watching an open heart procedure in my hospital, with one vital exception—I was only a voyeur in the hospital. With *Microsurgeon,* I was in control.

The graphics are brilliant and colorful. How's this for starters: Pick a patient (there are over 200)—some are sick, some sicker and some are critical. The first thing

*Norman Metzger has written 10 books and is vice president of Mount Sinai Medical Center in New York.*



that faces you is a chart for the patient you have selected. While you are "scrubbing up," check the chart for the status of the heart. Is it critical? Then check the rest of the vital organs. Are the kidneys serious? Is infection rampant throughout the body? The chart will also indicate your starting location—sometimes it is the eye, other times the intestines. By pressing a button, you are inside the body.

When you have journeyed via the circulatory or lymphatic systems to the trouble spot you have a choice of therapies. There is no time to consult an internist. Your choices include: ultrasonar for tumors, antibiotics for bacteria and, finally, the third choice, aspirin for viruses. With each shot, however, your power wanes. The slow-witted, the addled, the indecisive had best go back to *Pac-Man*.

There is a final stroke of ingenuity at the end of the game. Though you keep abreast of your progress by referring to the patient's chart several times during the game, when the power has run out you are presented with the patient's bill. The higher the bill, the better the surgeon you've been.

The only ingredient missing in this ingenious and exciting game—and one that would make it uncomfortably realistic—is the malpractice factor.

**Time if of the essence. You'll move faster if you stay in the lymphatic or circulatory systems. They are red, purple and orange.**

### MICROSURGEON—A SECOND OPINION

**Diagnosis:** After reviewing the case in question, viz *Microsurgeon*, I have to agree with Mr. Metzger's assessment. The graphics are realistic, the vital organs are in their anatomically correct positions and the diseases are in their proper places. For example, you will never find gallstones in the lungs.

**Prognosis:** A long life as game cartridges go. Over time, this game should intrigue and delight even those not planning a career in medicine.

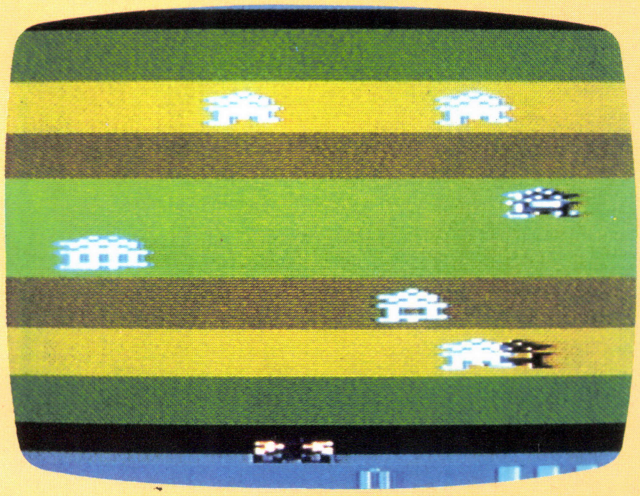
**Recommended Treatment:** Take two joysticks and call me in the morning.

## DEMONS TO DIAMONDS ★★★

*Atari/Atari VCS*

**By Raymond Dimetrosky**

As the competition becomes more intense in the home video games market, designers seem to be searching for ways to make familiar games seem innovative. *Demons to Diamonds* is actually an updated version of the classic target-shooting game. Atari has made it seem fresh by introducing several twists on the



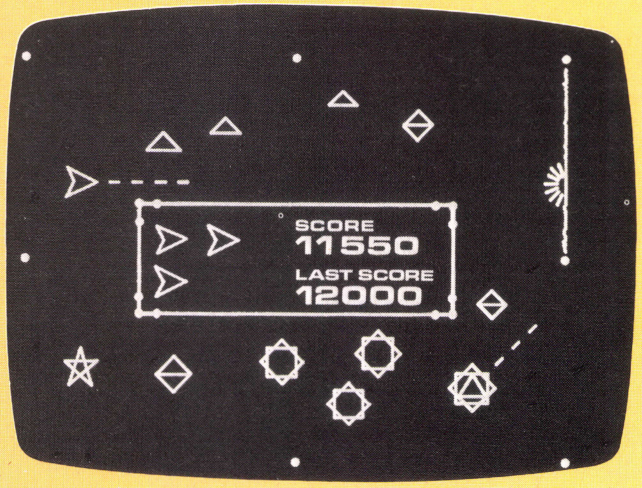
shooting-gallery theme. For example, the targets periodically change from your enemies to your friends.

If you enjoy target-shooting games, *Demons to Diamonds* is for you. Your shooting accuracy will be constantly tested since the demons frequently move in pairs. (It is not uncommon to find an enemy and a friend directly on top of each other.)

However, had *Demons* appeared a year ago, it probably would have seemed more exciting. The problem with this game is that when it is compared with the many exciting new cartridges coming out, it already seems to be primitive. While some of the sound effects *are* amusing, a number of them seem to have been borrowed from *Air-Sea Battle* and the VCS version of *Pac-Man*. Similarly, with the possible exception of the bright blue laser beam, the graphics don't grab you. Perhaps Atari has decided to support their VCS with shoot 'em up games while saving the more complicated titles for their new "Super System."

Funny thing though—after criticizing all of the drawbacks of this game, I found myself becoming addicted. Those of you who thrive on games requiring coordination will find yourselves surprisingly captivated. *Demons to Diamonds* is not an extremely original cartridge. But then again, not every game has to be earthshattering to be fun.

**Do not fire continuously. When hit, friendly demons become enemies. Be patient in this game.**




## OMEGA RACE ///

*Commodore/VIC-20*

This is another case of the arcade coming into your home, this time with essentially black-and-white graphics—although the cartridge gives you the option of selecting different background and ship colors. You also get treated to the "background story" if you hesitate for a few seconds before starting the game: "In a distant galaxy, a race of fierce warriors known as the Omegans..."

A rectangular box sits in the middle of the screen. This box contains your two spare spaceships, your running score and the high score record on that session of the game. Your ship and the enemy ships and mines use the field around the box. The box and the four edges of the screen are elastic, so whenever your ship hits them, it bounces and can become very difficult to control. You control your ship rotation with left and right joystick motion. Pushing the stick forward gives it thrust.

There are four kinds of android-piloted ships plus mines that are forever being put out by command ships and death ships. A command ship can become a careening death ship at almost any time.

I've found that the best strategy is to use the thrust right away to bounce the ship off the bottom of the screen, then point it horizontally and sweep the enemy ships with laser fire as you bounce up and down.

The only time you really have to change direction is when one of the ships gets around that box in the middle and starts coming up on your flank. These ships are shooting at you all the time and all you can do is fire braces of four laser-cannon bursts at a time and try to avoid being hit.

I'm not an expert yet, but after just a couple of days, I've already gotten close to 100,000 points. It's fun and has lots of variations built into each game. If you have a VIC-20, you owe it to yourself to get *Omega Race*.

**Bounce off the bottom of the screen, then rotate and pick off the Androids as you pass them.**

## GORF ///

*Commodore/VIC-20*

After dumping many quarters into *Gorf's* coin chutes, it's a pleasure to have the real thing at home to play whenever the fancy strikes me—that is, whenever I can get the VIC-20 away from my two 16-year-old kids.

The VIC *Gorf* is every bit as good as the coin-op version. Sure, it may use an Atari joystick instead of that heavy pistol-grip controller, but it's all there, starting with the first wave of astro battles against three fleets of Droids controlled by a Gorf.

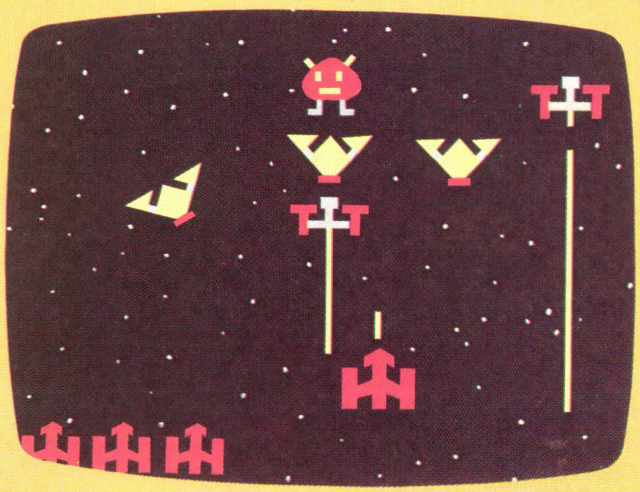
Get through these and you face a wave of laser attacks from a Gorf, three attack ships and a laser ship. In wave three, you face the Space Warp fighters and their homing laser-cannon bursts. If you're good enough to get to the fourth wave with some of your ships intact, you do battle with the flagship.

The attacking Droids in the opening part of the game look an awful lot like the aliens in *Space Invaders*, but don't be lulled into a false sense of security—they're much more deadly and much harder to shoot without being hit yourself.

You start with five fighter ships, although for some reason I haven't yet figured out, the game seems to provide some extras. Maybe they're bonuses for being the Good Guy. The fighter moves right and left and also up and down. You can fire single, long-range quark missiles or several short-range bursts in rapid succession. The short-rangers work well only if you move the fighter ship up close to the enemy. The first wave has a shield separating you from the aliens, although this gets shot up pretty fast.

A couple of little extras: You can adjust the position of the picture on your TV screen and you can hit a

**Move up to the top of the shield. Fire only one shot at a time. Continuous fire won't go through the shield.**



computer control that eliminates any jitter. There are no difficulty level settings; it's just like the arcade version in that respect, too. Just play it and enjoy. It's hard enough to get through all those waves as it is and this is one game you won't get bored with.

## DRAW POKER 111

*Commodore/VIC-20*

**By Walter Salm**

If you like to play cards, this game can be a grabber. There are other poker cartridges for home video games, but this one really packs a lot of action, interest and humor into its ROM. What makes this one so special? For one thing, there's the friendly atmosphere and the very definite computer orientation of the start of the betting. It's a casino poker game machine format, with a pair of Jacks or better needed to win. There's a list of the payback odds and the number of coins paid back changes with each additional coin that you bet. You start with a stash of 80 coins and can bet up to nine on each hand. Like real poker, you get five cards and can draw up to five new ones to try to improve your hand. Unlike real poker, the computer/dealer makes a happy noise when you win, outlines your winnings in red and then invites you to a double-or-nothing showdown with the dealer. If you elect to take the money and run, the computer plays a fast-paced electronic tune while it counts out your winnings and puts them into your coin register on the screen. Then it plays another electronic ditty while it shifts back to the betting mode again.

It's possible to rack up some impressive stacks of winnings in this game. The computer isn't stingy about dealing out winning hands. After all, it can probably win much of the money back in the double-or-nothing showdowns if you get too greedy.

## JUPITER LANDER 1111

*Commodore/VIC-20*

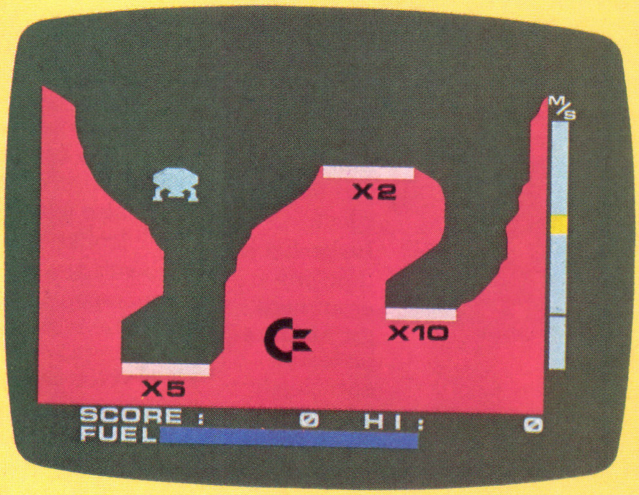
Look out! There's no joystick; just all those keys on the computer keyboard and you're running out of fuel and you're going to *C-R-A-S-H* !!! Actually, there are just three keys to remember and use on the VIC-20 for this game of skill, practice and coordination.

The idea is to land the rocket ship *softly* on any of three Jupiter landing sites marked off on the screen. The game's difficulty level depends on which landing site you choose. There's an easy one, which multiplies your soft-landing point score by two, while the more difficult sites multiply points by five or ten.

The A and D keys control left and right thrusters on your landing craft, while F1 gives you plenty of upward thrust to stop your free-fall for a slow, gradual descent.

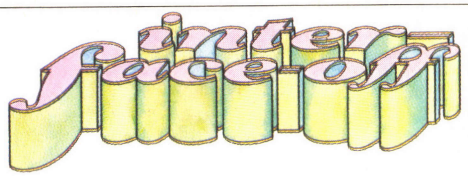
The trick is to land as softly as possible, keeping a black indicator line within a yellow "soft-landing" gauge on the right of the screen. You can make what looks like a soft landing, but if the indicator is below the yellow gauge, the ship explodes and the screen tells you, "Sorry, no bonus points." You almost feel the computer's going, "Nyah, nyah, nyah" and rather than be ridiculed by a CPU, you make up your mind to do better next shot.

Each time you win bonus points, you get more fuel. The game also gives you other messages, such as "Out of fuel." This one is transmitted while you stare wide-eyed and helpless as your ship crashes. A big help.




I found that giving the F1 key a lot of very short taps was the best way to control the amount of thrust while conserving fuel. It takes practice, but this is one of those games that is very satisfying once you've mastered it.

**Practice on the X2 site until you get very adept at it. Then tackle the X5 and X10 sites.**




# A Meeting of the (Game) Minds

*What's in store for gamers over the next couple of years? EF invited a panel of experts to share their insights into the future of video games. Participants in this meeting of the (game) minds were: Atari VP Ron Stringari; Arcadia VP Don Thompson; Coleco VP Michael Katz; Hope Neiman of GCE; Imagic VP Brian Dougherty; Mattel VP Peter Pirner and Richard Taylor, president of Telesys.*

**EF: Looking at the games business over the next year or so, what refinements and new peripherals can you project at this time?**

**Thompson:** I feel very strongly that we're going to see some real advancements in the direction of 3-D. And I think that might be less than a year down the road.

**Stringari:** 3-D is a distinct possibility especially if the TV industry gears itself towards that technology. Mitsubishi and Matsushita already have 3-D monitors and it's simply a matter of having a machine that interacts with that sort of device.

**Katz:** As far as 3-D goes, we already have it. *Zaxxon* is a 3-D space battle game. We'll definitely see more of that sort of 3-D effect.

Neiman

**Taylor:** Each time programmers get to a new plateau—specifically when working with the VCS—they say, "I don't think there's anything more that can be done. I just don't think we can make it any better." But they've been saying that for years and things keep getting better. The VCS is doing things it was never designed to do. How far can we go? I don't know, but I think 1983's going to see a lot of improvements for existing hardware.

**Pirner:** Technology is virtually unlimited. It's limited only by the imagination. We can even expect to see video games using live people—they're doing it with laser disks right now—film-quality action on the screen. I know it's not in the next year or so, but by the year 2000, I'd say a game player who liked football could put the LA Rams and the NY Giants on the screen and call the plays.

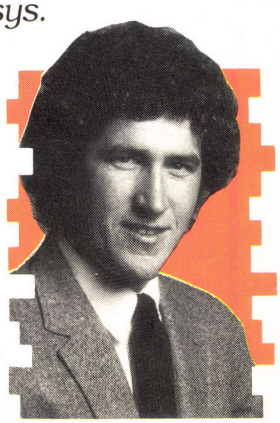
**EF: What about peripherals?**

**Thompson:** We developed the Supercharger which is a peripheral that eliminates the ROM system and provides random access. This certainly opens up the capabilities of the VCS. We're also working on a keyboard and it looks like we'll have the keyboard at a very attractive price. A mono-panel keyboard would make the VCS a tremendous entry-level computer.

**EF: Is voice going to be a big thing?**

**Dougherty:** I designed Mattel's voice synthesizer so you know I believe there's really a lot of merit to voice synthesis, but I haven't been happy with the software used to support the voice since it came out.

**Stringari:** That's the problem. You don't just add voice. You design a whole new game around it. In a football game, for example, you don't simply have someone yell, "Great kick!" That's not using voice. You have to make the voice an integral part of the game.



Dougherty

**Neiman:** Especially from a recognition standpoint. Recognition is the one place where home systems are going to take the lead away from arcade games. And I don't think that recognition is as far off as some others do.

**Dougherty:** The whole problem with recognition is that universal recognition is so hard to achieve. People say things entirely differently when they're training a system to respond to voice in/voice out commands than when they get into the play of a game. For example, if you want to say something like "fire," you say "fire" when training, but in the course of the actual game, you might say "Fire! Fire!" and it would sound entirely different to the machine. Voice recognition for simple things like turning on lights is easy but there needs to be some advancement in voice recognition technology before we can make it applicable to games.

**EF: What do you see as the next breakthrough over the next year**

**or two for gamers?**

**Pirner:** Stereo is the next step. You just have to look at component TV. The home of the future will have a TV tube and two speakers in the wall and will play games with stereo sound. The sound will be able to move from left to right which will be an enhancement for things such as car race games. It adds realism.

**EF: How far off is that?**

**Taylor:** Not very far.

**Dougherty:** The most important thing you're going to see is better graphics chips. There are new chips that are coming out that do a couple of things—like those found in Commodore's Max machine–that allow programmers to combine the best aspects of Intellivision's graphics with the best of Atari's. You'll be able to have eight moving objects—as Intellivision does—and combine that with line by line color change like that found in the Atari. These chips are really going to bring high quality graphics into the home.

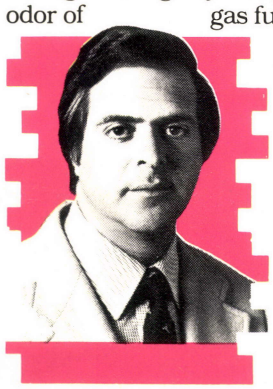
**Neiman:** For instance, vector graphics such as we have on our system—Vectrex. The thing that vector graphics does is give you excellent perspective motion.

**Katz:** We're looking forward to more lifelike resolution. The first human figures to appear on video games were somewhat primitive stick figures. Mario, on Coleco-Vision's *Donkey Kong*, is more realistic, more detailed and capable of more human movement. If, in just four years, the level of sophistication has increased this much, imagine how much it can increase in the next four. I suggest we will be calling on different senses and other human attributes in terms of how individuals interact with games.

Thompson

**Taylor:** Let's not focus only on graphics and sound. I think there's going to be a combining of everything. The closer we can get a video game to utilize all five senses, the better. I agree that's the way things are going to go.

**Stringari:** Yes. And all additions have to enhance games. The addition of smell, for example, would enhance a racing cartridge by bringing in the odor of gas fumes.



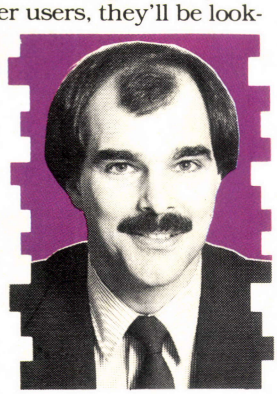
Katz

**Neiman:** We're going to be able to make players feel as if they're actually in the game. It's like the Walkman. The sophisticated headset takes you out of wherever you are and puts you wherever the music is. And that can happen with video games, too. Take a game like *Red Baron*, you're actually in the setting of the game. The player will become more a part of the game.

**Thompson:** The more we progress in sophistication, the more utilitarian applications will be drawn into it. Like flight simulators. I can see drivers' training, ground work and flight training all tying into video game applications.

**EF: What about the shift to home computers? Is this going to make video games obsolete?**

**Neiman:** I'm an advocate of the two-tier system—having both, each for a different purpose. Video games are a way of getting people into computers without being quite as afraid of them. But as people become more sophisticated both as game players and computer users, they'll be looking for what provides the best of each of those separate worlds.



Stringari

**Thompson:** Our coming add-on keyboard will provide a step in that direction. That's really the main thing we're looking for right now—building a bridge from video games to computers.

**Taylor:** That's where component video comes in again. You don't revolutionize the consumer market—you evolutionize it. And what component video allows us to do is to buy a TV monitor and a switching system and then replace a computer or video game without having to replace any other part of the system.

**Dougherty:** I think games and communication are going to be the link. Data bases like the Source and Compuserve will serve as the bridge. Everything, or a substantial amount of everyday things, will be able to be carried out in the home which will make the computer a necessary appliance like the telephone.

Pirner

**Stringari:** I think we're looking at a future where people have both. People want instant gratification. They need different products to serve different needs. There will always be a gaming machine.

**Pirner:** Video games and computers are two different categories, but in essence, every video game is a computer. It's just a computer that's made to play games and play them extremely well.

**Katz:** Video games will never become obsolete. A game machine is a more efficient piece of equipment for someone who just wants to play games at a price lower than a personal computer. I see future video game prices coming in at under $100.

**EF: That's a good point. What about pricing? Will prices come down?**

**Thompson:** I think you'll see a reduction in prices.

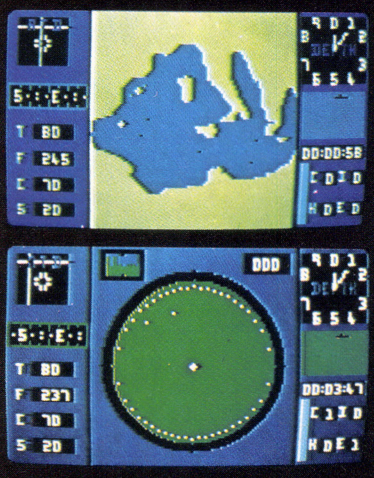
**Taylor:** Regarding pricing, I think that the price of game software will remain as it is on hit games. For games without wide appeal, bargain hunters will find some very attractive prices.

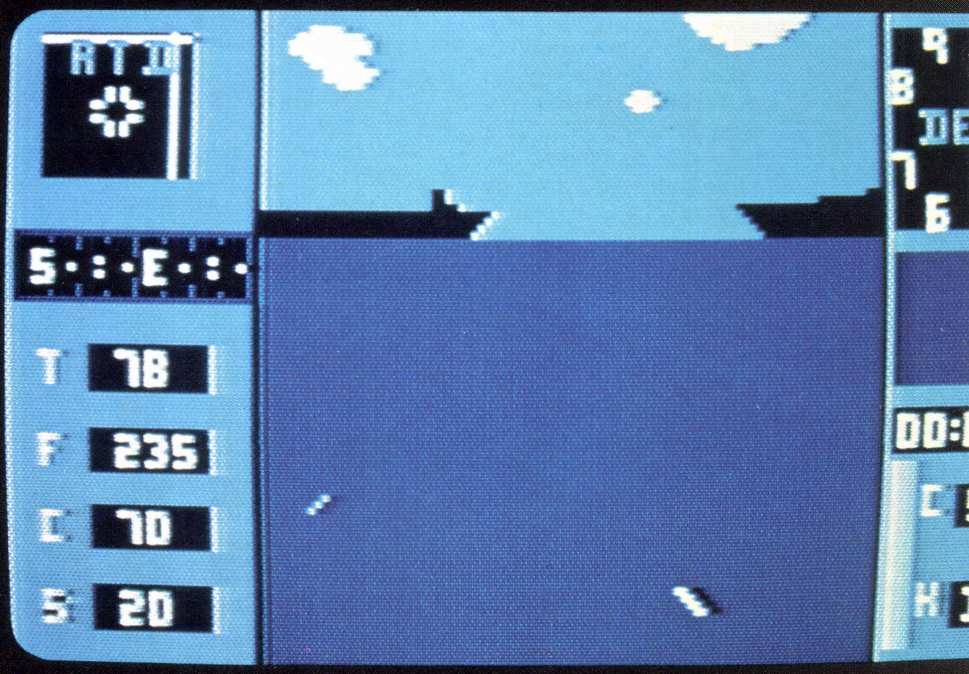
**Stringari:** People will alway be willing to spend the money for a good game. The games that are garbage probably won't sell at any price. In electronics, there's nothing worse than yesterday's breakfast.

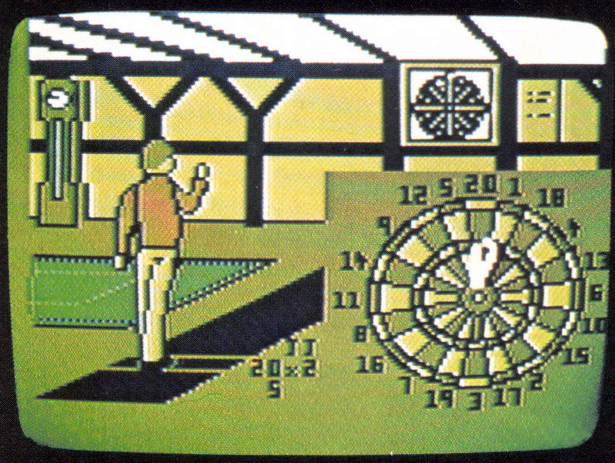
**Taylor:** Right. Only turkeys will be cheap.□

# PLAYFC

## COMPUTER GAMES THAT ARE THE CLOS





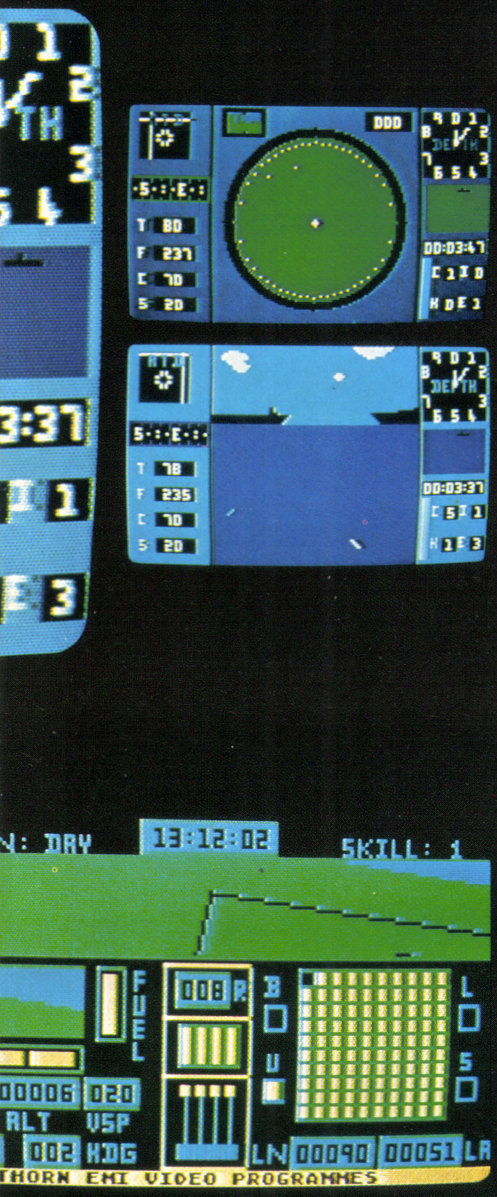



© 1982 THORN EMI Video Programming Enterprises, Inc.

# OR REAL

## EST THINGS TO REAL LIFE CHALLENGES.

# THORN EMI VIDEO




*THORN EMI Video Programming Enterprises, Inc., part of the international entertainment giant, announces 21 computer games that are so real, so challenging, you'll almost forget you're playing a game. You'll be playing for real. No wonder. The graphics are amazingly real-to-life. Action packed. You'll know the moment you start playing one you aren't playing any ordinary computer game. You'll be concentrating too hard.*

*Take Submarine Commander. Your mission? To hunt down and destroy all enemy merchant shipping in Mediterranean waters. How? With your sonar and torpedoes. What if you're attacked? Dive (but not too deep, or you'll crack the hull), dodging the depth charges. Remember to keep checking the instruments for your oxygen level, fuel, battery charge, depth under keel. And keep a sharp lookout for enemy destroyers.*

*With 21 exciting games to choose from, THORN EMI offers a game for every member of the family. There are super realistic simulator games, like Submarine Commander and Jumbo Jet Pilot, sports games with lots of fast action, nursery rhyme puzzles, even a financial management game. All have different levels of challenge, so you can make them as challenging as you want, and they can be played on the Atari® 400 and 800 and the VIC® 20. Whatever your favorite pastime—playing pool or darts, soccer or driving a power boat, composing music or doing the Cube, THORN EMI has a game just for you.*

THORN EMI
VIDEO

Atari is a registered trademark of Atari, Inc.
VIC 20 is a registered trademark of Commodore International, Inc.

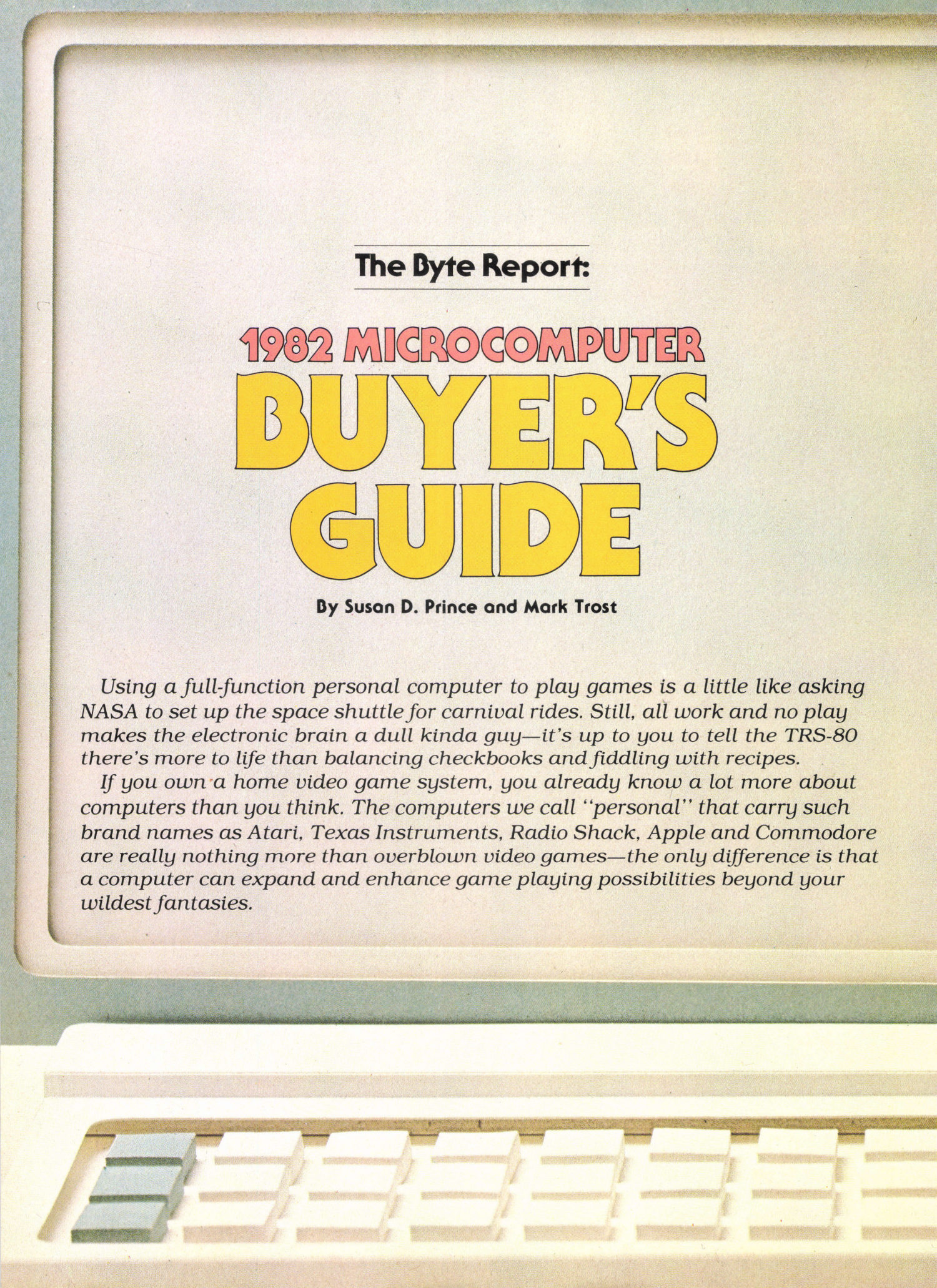
## The Byte Report:

# 1982 MICROCOMPUTER BUYER'S GUIDE

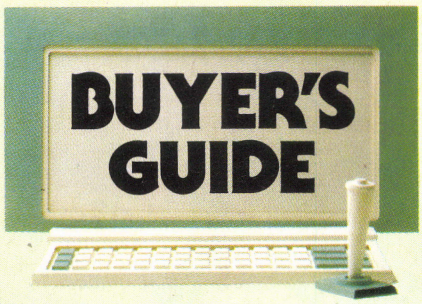
By Susan D. Prince and Mark Trost

*Using a full-function personal computer to play games is a little like asking NASA to set up the space shuttle for carnival rides. Still, all work and no play makes the electronic brain a dull kinda guy—it's up to you to tell the TRS-80 there's more to life than balancing checkbooks and fiddling with recipes.*

*If you own a home video game system, you already know a lot more about computers than you think. The computers we call "personal" that carry such brand names as Atari, Texas Instruments, Radio Shack, Apple and Commodore are really nothing more than overblown video games—the only difference is that a computer can expand and enhance game playing possibilities beyond your wildest fantasies.*



Not just another pretty interface: (clockwise from top left) Texas Instruments TI-99, Atari 400/800, Apple II, Commodore VIC-20, the Radio Shack TRS-80 Color Computer.




Like a video game machine, the home computer has five essential components: (1) a heart and soul called the central processing unit (CPU) which oversees even the tiniest performance details (a good analogy for the CPU is the Master Control character in *TRON*); (2) the memory, even better than an elephant's, which holds every iota of information in an assigned cubbyhole until the CPU asks for it; (3) input or a vehicle for getting information into the computer (your joystick, known as a "potentiometer" in electronics lingo, is probably the most common form of input, after the keyboard); (4) output or means of moving information out of the computer (your TV set is an output device and so is a printer) and finally, (5) the software or program—the information and instructions a computer needs to do its duty. Programs are invisible—you cannot see, hear or touch them. What you *can* touch are the media that contain the programs (i.e., game cartridges, floppy disks, printed program instructions on paper, etc).

## No Hocus-Pocus

Computers and video games even work on the same general principle. In a video game, you insert the cartridge (program) and push the start button (another input) which tells the CPU that you are ready to play. By this time, the program instructions are temporarily stored inside the memory, out of which the CPU can call them into action and then display via the TV set each and every game step (fire, display score, next screen, etc.) in response to your inputs (aim, move laser, capture alien, etc.).

No hocus-pocus—that's it, that's the whole story. So if you already have a game system, why buy a home computer to play games?

The answer lies in memory and programmability. Memory is measured in units of thousands of bytes (abbreviated K bytes). A byte is the smallest unit of information a computer is capable of processing. Obviously, the more information a machine can accept in memory, the more tasks it can perform. Typically, a video game system accommodates from 2,000 to 4,000 bytes (2K to 4K) maximum in memory. A computer like the Atari 400 holds 16,000 (16K) bytes minimum—quite an increase.

Similarly, a machine like the Odyssey², for example, has been purposely limited, or dedicated, in programmability because its primary function is to interact with preset game cartridges. Aside from a few perfunctory programmable functions, (e.g., you can type in your name next to your score), there's little or no user control over the game program. By contrast, a TRS-80, TI 99/4A or Apple II-Plus permits users such interactive program options as changing a section of a game to make it harder, adding new scenarios or "what-ifs" and even designing original games from scratch.

Should you buy a home computer *just* to play games? Possibly. The proliferation of manufacturers, falling hardware prices and increasingly easy-to-use software virtually ensure that there's a computer out there to suit every pocketbook and level of understanding.

Below is an overview of the most popular personal computers, the range of games available for them and up-to-date prices to aid in your shopping decision. That final choice won't be easy—each system contains features to strongly recommend it. Good luck!

## HOME COMPUTER COMPARISON

| | RAM MEMORY | ROM MEMORY | GRAPHICS | KEYBOARD |
|---|---|---|---|---|
| **RADIO SHACK** TRS-80 Model 111 | 4K-48K | 4K or 14K | 64 characters and dot graphics | basic plus keypad |
| **COMMODORE** VIC-20 | 5K-32K | 16K | 128 full-screen character graphics | basic |
| **COMMODORE** Max | 2K, additional memory available | not available | 16 colors, 255 border/background combinations | basic |
| **APPLE II** Plus | 48K-64K | 12K | 15 colors | basic |
| **ATARI** 400 | 16K | 10K | 128 colors, graphics | flat |
| **ATARI** 800 | 16K-48K | 10K | 128 colors, graphics | basic |
| **TEXAS INSTRUMENTS** 99/4A | 16K-48K | 16K | 16 colors | basic, ½ sized |

*BASIC language allows the user to perform personal inventory, personal fi*

## Atari 400/800

The crowned king of video game

*Paper Sculpture: Sally Vitsky*

**For $299 you can get an Atari 400, with four times the memory of your Atari VCS.**

mainframe and software makers is no slouch when it comes to offering computers with definite game applications.

Atari currently manufactures two models. The 400 is the so-called "Basic" computer with 16K Random Access Memory (RAM) and a suggested list price of $299, which rivals that of its major competitor, the VIC-20. The step-up model, dubbed the 800, also offers 16K of game-ready memory that can be expanded to 48K. The sticker price of $899 reflects the personal computer's sophisticated capabilities.

The 400's low price gives it immediate appeal to the game addict on a budget, as does its familiar appearance. The touch-sensitive keyboard brings the Odyssey² immediately to mind. Although the keyless keyboard is a definite minus if you're looking to use the unit's personal computing functions, it's no deterrent to playing an almost arcade-like game of *Pac-Man*.

The cost and stripped-down nature of the model gears it toward the personal computer novice. But keep in mind, it still has four times the memory capacity of the Atari VCS, which translates into far more sophisticated graphics, music and play value. The unit also features four independent voices covering 3½ octaves, a built-in speaker for audible keyboard prompts and key controls if you don't have enough bucks to spring for the optional joystick controllers ($21.85 per pair).

The company recommends that 400 owners start off their software library with The Educator Kit ($169.95) which comes complete with a program recorder for storing programs, computer language cartridge to access programs written in Atari BASIC and a States & Capitols cassette program which "offers a fun lesson in geography" according to the Atari brochure.

The Programmer Kit ($69.95) is another software package designed for the beginner. The kit includes an Atari BASIC reference manual, self-teaching guide and computer language cartridge.

But the choice of most 400 purchasers has to be The Entertainment Kit ($89.95), complete with arcade-quality versions of *Star Raiders, Missile Command* and two joystick controllers. Other 400-applicable games range from *Blackjack* ($14.95) to *Centipede* ($44.95), with *Baseball, Breakout, Asteroids, Caverns of Mars* and *3-D Tic-Tac-Toe* also offered.

## Four-Way Control

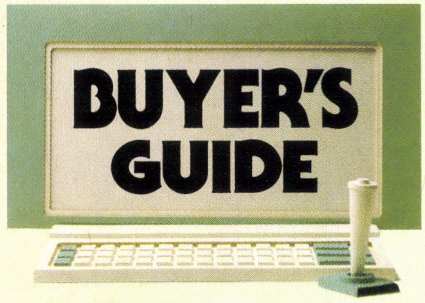
While the 400 has definite allure, the computing capability of the higher-priced Atari 800 may tempt even the most ardent game player to use it for something more than a challenging round of *Space Invaders*. The 800 boasts a full-stroke typewriter keyboard, 256 hues (that's 16 colors with 15 intensities each), inverse video for emphasizing letters and numbers, a four-way cursor control, 10K read-only memory (ROM) and an Atari BASIC guide.

If you have no plans to elaborate on the 800 via peripherals or memory modules, you might as well get the 400. Only when such accessories as the 16K memory module ($99.95), disk drive ($599.95) for enhanced program storage and acoustic modem ($199.95) for accessing data bases are added do you really have the makings of a true home computer.

These additions not only allow you to get the latest stock market report or compute the nation's GNP, they also give the player access to a long list of truly sophisticated games that go far beyond the dodge-and-shoot variety. Such games include *Landing Simulator* (requiring 32K) and

| OPTIONAL I/O | LANGUAGES | OPERATING SYSTEMS | MAINTENANCE | WARRANTY | LIST PRICE |
|---|---|---|---|---|---|
| joysticks | BASIC, COBOL, Pascal, AUTHOR, PILOT, FORTRAN, Quick, Quiz | Disk Operating System (DOS) | dealer, on-site | 90 days parts and labor on hardware | $699 |
| cassette, joysticks, paddles | BASIC | Own | dealer | 90 days | $300 |
| joysticks, paddles, lightpen, Datasette Recorder | BASIC | Own | dealer | 90 days | $180 |
| wide variety | BASIC, COBOL, Pascal, others | DOS 3.3 UCS Dp | on-site, sales centers | 90 days parts and labor | $1,530 |
| tape cassette, joysticks, loudspeakers, paddles | BASIC, PILOT, FORTH | Own | dealer | 90 days parts and labor | $299 |
| tape recorder, joysticks, loudspeakers, paddles | Microsoft BASIC, BASIC A+, Pascal, PILOT, FORTH | Own | dealer, regional service center | 90 days parts and labor | $899 |
| wide variety—including joysticks, cassettes and speech adapter | TI BASIC, TI LOGO, Pascal, FORTRAN, MACHINE | DOS and phone load in | regional TI service center | 90 days replacement | $450 *(rebate until January 31)* |

*ce, office at home and research functions.*




*Starwar* (needing 40K), both made available by the Atari Program Exchange (APX), an Atari division that distributes software written by Atari owners via a quarterly publication.

These games truly utilize the computer's abilities—not only by emphasizing elaborate graphics, but also by placing equal if not additional importance on strategy and even historical accuracy.

*Eastern Front (1941)* at $29.95 is an example of such a challenging game. Utilizing 32K when played on the 800, the program recreates the conditions, terrain, seasons and types of military units used during the WWII invasion of Russia.

You are a German commander (no, not Col. Klink) attempting to pierce the Russian resistance. Each move (actually a series of moves) is a set of instructions for a week's battle. These instructions are evaluated by the computer to reflect how far your troops have moved, their aggregate strength and how far west the Russians have moved. As many as 18 colors appear on the screen at one time and a scrolling map allows you to survey the entire battlefield.

Such play value (with a little education thrown in) makes even the best version of *Donkey Kong* pale by comparison.

## Texas Instruments TI-99/4A

If the spokesman for Texas Instruments had his way, we'd all be drinking Coke, eating Jell-O Pudding and playing Chess on the TI-99/4A. But the ubiquitous Bill Cosby aside, the second-generation Texas Instruments home computer, at a suggested retail price of $525, offers a lot of personal computing and gaming power for the price (which is often discounted to under $300).

TI, which loves to bill itself as "the inventor of the integrated circuit," certainly packed a lot into the rather small mainframe of this computer. The unit scarcely takes up any more room than an Atari VCS or Intellivision, but delivers the kind of memory and graphics that the most elaborate—and expensive—personal computers do. The unit comes with 16K bytes of data storage memory, making it comparable to the Atari 400/800, with expandability to 48K through the memory expansion module.

## Name That Tune

The console features speech capability, color graphics, upper and lowercase letters (an improvement over the first-generation model) along with numbers, punctuation and symbols. The TI also facilitates the design of complex graphics through the use of a space bar, which repeats desired characters when held down. Special keys simplify such computer functions as BEGIN, AID, PROCEED and REDO.

TI also offers such standard computer options as a solid-state speech synthesizer ($149.95), telephone modem ($224.95), disk drive controller ($299.95), disk memory drive ($499), solid-state printer ($399.95) and a pair of wired remote controllers ($34.95).

While the company pitches the computer as an educational and personal improvement tool, the ability to play and design sophisticated games is here, particularly because of the rather large built-in memory. Games are available on plug-in modules, cassettes and discs. Prices range from $9.95 for a cassette of *Mystery Melody*, a *Name That Tune* variant with the computer replacing Tom Kennedy, to $29.95 for a plug-in module of *Video Games I*, a triple-threat offering with *Video Pinball, Shooting Gallery* and a maze game.

To stimulate interest in its machine, TI recently offered their version of *Pac-Man*, dubbed *Munch-Man*, with the machine. The company also unveiled a group of new games to appeal to the video games fan. Among the entries are *Tombstone City: 21st Century* ($39.95), a video game version of *Gunsmoke* with tumbleweed- and people-eating aliens replacing the Dalton Gang; *Car Wars* ($39.95), a maze game with autos; and *TI Invaders* ($39.95) (do we have to tell you what this one is patterned after?).

We've played the TI, and while its personal computing capabilities match any unit on the market, the games may leave some wondering why they're getting more and enjoying it less. We found the game graphics far more sterile and, for some reason, smaller than on most other computer mainframes. But with the popularity of computers growing at an astonishing rate, it's almost certain that TI will expand its game library and that independent software suppliers with games that rival or better those of the Atari 800 or VIC-20 models.

## TRS-80

Although some users of Radio Shack's personal computer have been known to call their beloved machine the Trash-80, the Tandy model continues to be a mainstay of the personal computing market because of a solid library of Radio Shack and independently-manufactured software.

Considering the unit is packaged with little more than 4K RAM, the $399 suggested retail price may seem stiff at first. But those pondering a TRS-80 purchase must look at the unit as a first step toward entering the world of personal programming and enhanced game play. As with all computers, it is the expandability factor which makes the TRS-80 a viable alternative to frequenting the neighborhood arcade.

In addition to offering the standard catalog of peripherals individually, Radio Shack makes available a complete Home Enter-

**The first Apple computer was invented in a garage by two college dropouts.**

tainment and Control System priced at $702.80. The package includes the basic computer, two joysticks, a plug 'n' power controller which allows you to control household lights and appliances (a rather interesting game in itself), a TRS-80 Videotex program pack, direct-connect modem and cassette recorder.

## TRS-80 Games

If it's games and games only that you want, the TRS-80 addresses itself to your demands. Although the company does not—and probably never will—license arcade games, they offer the prerequisite array of clone games. The software is priced from $29.95 to $39.95 and includes *Chess, Quasar Commander*(a *Space Wars* style game), *Football, Checkers, Dino Wars* (a sort of prehistoric boxing), *Skiing, Space Assaults* (nee *Space Invaders*), *Super Bustout* (nee *Breakout*) and *Polaris.*

Admittedly, TRS-80 software doesn't offer the name, value or variety of an Atari or VIC-20, but the sheer number of TRS-80 machines in use has caused independent programmers to design far more sophisticated games requiring 16K and 32K for the TRS-80. These software makers have brought the TRS-80 up to the level of other manufacturers' hardware.

If you think you might be in the market for a TRS-80 provided you could to get a better price at a discount dealer, think again. The TRS-80 line is only available through Radio Shack outlets and is not subject to widespread discounting as are most other computers. Unless Radio Shack itself is sponsoring a sale to liquidate inventory, these suggested prices are more than just suggestions . . . they are orders.

## Apple II and Apple II-Plus

The first Apple computer was invented in a garage by two college dropouts. Today the machine is second in popularity only to Radio Shack's TRS-80 model. Because it is made for the serious user as well as for the novice, and because it was the first computer to reach mass market status, Apple boasts the best-supported system in the world. Literally hundreds and hundreds of game, business, graphic and educational programs are available from the company and from outside sources for beginners and advanced computerphiles; new software is written and circulated daily.

Both Apple II and Apple II-Plus are considered general purpose machines with high-resolution color that can be used for anything a personal computer is capable of doing—from playing games to educating students to organizing a small business.

## Sophisticated Games

Be warned, however, that the unit is among the more expensive choices, probably worth considering only if you intend to expand far beyond game applications. The standard Apple II is contained in a compact, lightweight plastic case. A built-in keyboard terminal has 52 typewriter-style keys that produce characters in uppercase only (a special software device can be purchased and installed separately to generate lowercase characters). The standard machine lists for $1,330 including 16K bytes of user-controlled random-access memory (RAM). Since Apple memory is organized into 16K byte blocks, a maximum of 64K bytes (three additional blocks) may be added to the basic 16K machine at additional cost. Most first-time buyers opt for a starter system with at least 32K bytes of RAM and a single disk drive (about $2,075 total). For game playing this set-up is ideal, since many of the more sophisticated simulation games on the market require from 16K to 32K bytes of storage to operate and are available on floppy disk only.

Also included in the basic system are a cassette interface (connection) for program and information storage on a cassette tape recorder, a built-in speaker for sound generation, a 16-color palette for low-resolution graphics, game controller input/output, seven slots for user expansion, a power supply and AC line cord and an output for a color or black-and-white video monitor. The monitor is optional and an RF modulator, similar to the TV/game switch, is needed for connection to an ordinary TV set.

The Apple II contains a limited version of th BASIC programming language, called Integer BASIC. It can handle only whole numbers and lacks many of the advanced mathematical functions. It offers low-resolution graphics commands and generally operates faster than Apple-soft BASIC—a deluxe version of BASIC that is included with the Apple II-Plus. Applesoft can handle whole numbers and decimal fractions and offers many useful math functions, plus low- and high-resolution graphics commands—ideal for designing your own games. Other than the difference in programming languages, the Apple II and II-Plus are identical systems.

## Apple Games

Games listed in a recent Apple Computer company catalog included *Apple Trek* and *Space War* in the outer-space-attack genre, *Mission U-Boat, Shootout* and *Sink the Ship* in the earthbound-war category and some offbeat simulations such as *Intercept, Towers of Hanoi* and *Nightmare No. 6.* By all means, don't limit your playing selections to the company's offerings. Outstanding programs by independent designers abound. Consult the catalogs of such independent distributors as Creative Computing, Muse Software, Epyx and Hayden.

*Continued on page 98*

*What can you get for $99 these days? Dinner for two at a fancy New York restaurant. A few pairs of designer jeans. A couple of speeding tickets if you're lucky. But that's not all. Timex, the company that until now was perfectly content to strap its watches onto outboard motors, has come out with a $99 computer—the most inexpensive computer in the world.*

*You're probably thinking, "Just $99? Is this REALLY a computer? Will it play games? Can I program it, or just use cartridges like those other 'computers' that only play games? What else will it do? Is this for me?"*

*Yes, this really is a computer, one you can program, one that will play games and has the power to do the things you expect a computer to do.*

# $99! COMPUTER

## We take the TS 1000 for a Test Disk Drive

The video games you play at arcades or at home are dedicated computer programs. You've probably spent many bleary-eyed hours blasting invaders, munching dots or trying to get frogs safely across a road. You have simply been giving commands—using buttons and joysticks—to a computer "chips," which then follows either a built-in program, or one provided in a cartridge or cassette. Wouldn't it be even more fun to create your own programs? Well, you can do that with the Timex Sinclair 1000. The TS 1000 is changing the whole picture by offering a powerful built-in programming language and low-cost printers and other peripherals.

### What Will It Do?

Well, for one thing, it will play games—from chess to arcade-type—although not with the same dazzling speed, color or graphics as the Atari, Intellivision or the other game machines. The TS 1000 displays only in black and white. Its graphics are low-resolution and it's comparatively slow in many functions. But these very restrictions make it a superior program training tool, allowing you to *learn*, not just *do*. Furthermore, this little computer can keep financial records and help compute income tax. It will inventory your collections—books, records, tapes, coins or whatever. It will teach a wide range of subjects, from spelling to history, geography and even languages. It will allow you to compose music. Using a modem, you can also use the TS 1000 to access the vast information of large computers through a simple phone hookup in your home. And an inexpensive printer can keep "hard copy" of all computer output and programs.

### Timex Sinclair 1000 Genesis

The TS 1000 did not spring up out of nowhere. Its heritage goes back to the fertile mind of Clive Sinclair, head of Sinclair Research Ltd. in England. "Uncle Clive" has been responsible for many innovations in the microelectronics field, including the first digital watch in kit form and the first micro TV with a one-inch screen.

In early 1980 Sinclair shocked the computer world by offering an under-$200 computer, the ZX80. It was small, self-contained and could be used with any TV set. Inside there was a remarkably small number of components, and where most microcomputers at that time

# Rating the Timex Computer.

used dozens of IC (integrated circuit) chips the ZX80 used only 18 IC's. The ZX80 was an immediate hit in England and was offered in the United States about eight months later.

The next version, the ZX81, used only four IC's, and contained a very powerful programming language, expandable memory and provision for a printer and other accessories—all for $150 assembled or $100 in kit form. Manufactured in Scotland by Timex, the ZX81 quickly became the largest-selling computer in the world.

In April of 1982, the Timex Computer Corporation announced that they would be distributing their version of the ZX81—the Timex Sinclair 1000—in over 100,000 outlets in the United States and Canada for only $99 assembled.

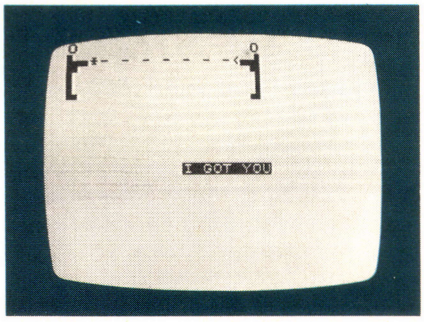
## Now—And Coming Attractions

The 1000 is contained in a black plastic case about the same size as this magazine, though a bit thicker. It weighs only 12 ounces and the $99 price includes a power pack that plugs into any standard 110-volt 60-cycle AC outlet and a Computer/TV Switch that can be connected to the TV's antenna terminals with a screwdriver. A double cable is used with any tape recorder to save and load programs. An excellent 154-page User's Manual, designed for beginners, is also included with the 1000.

Several peripherals are already available. A memory-expansion module, the Timex Sinclair 1015, provides 16,384 memory locations (bytes) in place of the 2,048 built-in bytes for only $49.95. A specially-designed printer, the Timex Sinclair 2020, is available for $99.95. A $99.95 modem, which plugs into your phone line and will automatically dial your telephone, allows the 1000 to communicate with other computers, large and small.

Timex will be supporting the 1000 with a lot of new programs that will add to the extensive library of software already available for the ZX81. Fortunately, ZX81 programs will operate on the 1000.

**Showdown at the 2K Corral: The screen ain't big enough for the two of you in SHOOT OUT. SHOOT OUT pits you against the computer. When the screen says "Draw", you draw your gun and, using two keys, fire.**




## Timex Sinclair 1000 vs. ZX81

You may wonder what the differences are between the TX 1000 and the Sinclair ZX81. Paradoxically, very little—but also a great deal. The ZX81's 1K RAM (Random Access Memory) has been replaced in the TS 1000 with a 2K RAM. "Big deal," you might say. But, in fact, it is. What is generally not realized is the manner in which the first 1K of RAM is used. Almost three-quarters of the 1,024 bytes of RAM in the ZX81 is used by the display. The more on the display, the less memory is available for your program.

Changing the memory chip from 1K to 2K gives you an additional 1,024 bytes for programming. That means perhaps six times as much programmable memory is available in the TS 1000 as compared with the ZX81. If you use the 16K add-on memory, both the 1000 and the ZX81 have the same capacity, since the add-on replaces the internal memory.

## The Slightly Technical Stuff

Without getting too detailed, here is some technical information about the 1000, so you can compare it with the specifications of other home

and personal computers you might be considering.

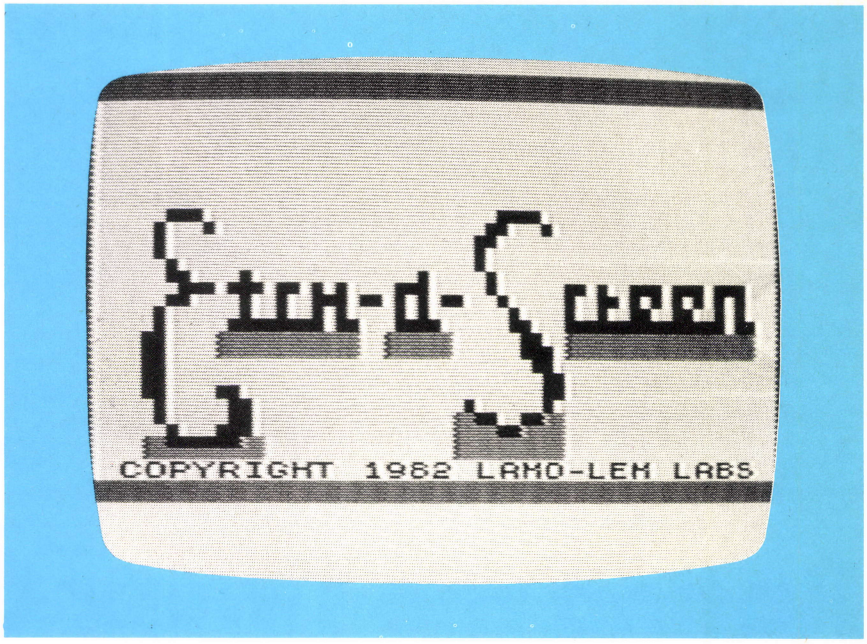
The 1000 uses a Z80A microprocessor—the same chip used in many of the most powerful microcomputers—running at a "clock" speed of 3.5 MHz (megahertz, or cycles per second). Its built-in switch-selectable, Channel 2 or 3 VHF modulator converts the computer's black-and-white video signal for connection directly to the antenna terminals of any TV set that uses U.S. receiving standards.

The screen is divided into two sections. The top section displays 32 characters on a line. This can be the program listing or the program in operation. The character set includes numbers, letters and punctuation. There are also 22 graphic symbols of various shapes, including six with tiny checkerboard patterns that look like gray on the screen—particularly useful for bar graphs. Pixels (or blocks of dots), each equal to one-fourth the size of a character, can be placed anywhere along 64 horizontal or 44 vertical screen positions under program control. This allows animation and graphics, mostly used in games. Text and graphics can be freely intermixed.

The bottom screen section shows the command or program line currently being entered. Editing is supported with a left-right cursor, insert and delete keys—very simple. The lower-left corner of the screen is also used for report messages indicating normal or error status. Fifteen error codes help in finding and correcting program errors.

The keyboard is the flat, plastic-membrane type. There are 40 keys, some of which have six functions. The keys do not provide tactile feedback, but the screen shows the result of each key contact. The letters and numbers are positioned in the standard QWERTY format but the keys are closer together than on a regular typewriter or computer keyboard. An advantage of this type of keyboard is that it is impervious to coffee spills and cigarette ashes.

The built-in programming language is a surprisingly powerful version of BASIC (Beginner's All-purpose Symbolic Instuction Code), the most common microcomputer language. This BASIC (and the operating system) uses over 8,000 bytes of ROM (Read-Only Memory) with a full range of mathematical and scientific functions accurate to nine-and-a-half decimal places. Programmers will recognize the power of multi-dimensional string and numerical arrays, string comparisons, string slicing, concatenation, conditional expressions, up to 26 FOR-NEXT loops, syntax checking on line entry (with exact error position on the line), error codes and single-key entry of all keywords. Tape SAVE and LOAD is at 250-baud (about 30 characters per second) with file names. Although READ/DATA/RESTORE are not supported, the tape SAVE and LOAD can include all variables and arrays, which can be an advantage.




**You gotta have art: ETCH-A-SCREEN text and graphics program.**

## Can I Learn To Program?

Sure you can. The TS1000 can be programmed in BASIC or in machine language. BASIC uses an "interpreter" to translate your program into the machine language the computer uses internally. Machine language (the ones and zeroes that comprise pure computer language—binary code) is achieved in a more complex manner, using assemblers, disassemblers, monitors and assembly-language. You'll most likely start with BASIC, which is supported by a tremendous number of users, magazines, books, programs and peripherals. ZX81/ TS 1000 User Groups are popping up all over the country. Programs are available from Sinclair and Timex, as well as various other suppliers (see box). Independent manufacturers are offering devices to interface with larger printers. Several manufacturers offer expanded memory capacity up to 64K (65,535 bytes).

Learning to program in BASIC is mostly a matter of practice with existing programs and then starting to write your own. The 1000 User Manual assumes no previous computer knowledge, is full of examples and exercises and gives you plenty of hands-on practice.

## Software Galore

Do you like games? How about *Chess, Backgammon, Supermaze, H-A-N-G-M-A-N, The Cube Game, Road To Riches, Super Invasion, Wallbusters, Space Trek, Adventure A, B or C?* One cassette, for only $14.95, has ten programs: *Lunar Lander, Corridors of Death, Star Trek, Shuttle Pilot, Alien Alert, Shoot Out, Kamikaze Pilot, Battle*

# If you don't feel like computing your taxes, play a few games of...

*Zone, Space Escape* and *Brands Hatch* (English race-car driver). These are available from Softsync.

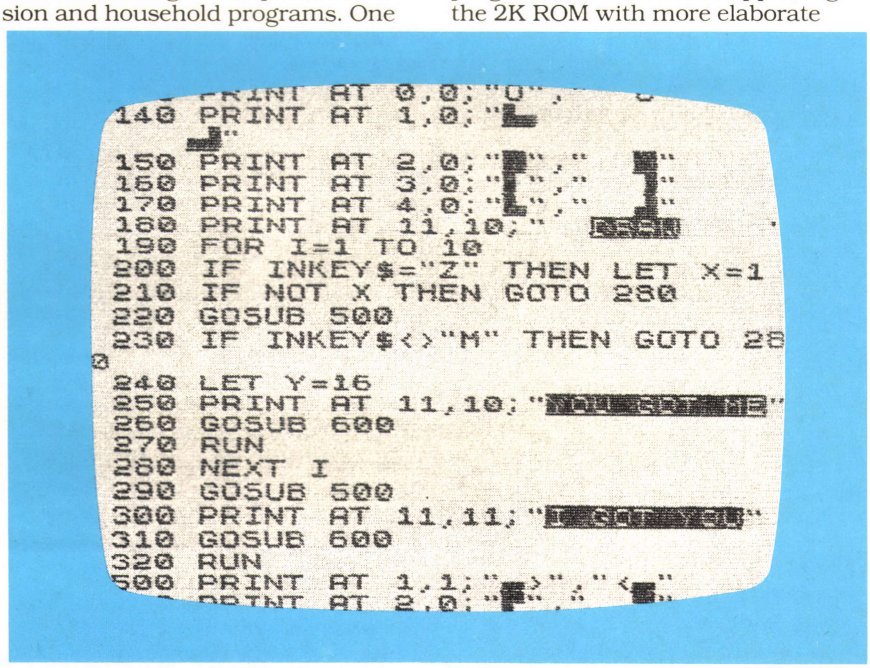
Gladstone has four different $9.95 Game Packs, each with two to eight game programs on a cassette. *Dictator, Damsel & the Beast* and two fantasy games, plus *Chess, Backgammon, Star Trek* and *Invaders* are available as well. They also offer Constellation (sky charts), Multifile, Vu-Calc, Flight Simulation, Viewtext (screen graphics) and, for machine-language programming, ZXAS Assembler and ZXDB Disassembler/Debugger. Gladstone has six "Computer-Aid Math" program packages running from grades one through eight.

Sinclair has recently expanded its software offerings from five cassettes (with a total of 28 programs) to dozens of programs. Business applications include Vu-Calc, Vu-File, Collector's Pack and Club Record Controller. The Fun To Learn series includes English Literature, Geography, History, Mathematics, Inventions and Music. The Super-Programs series includes eight cassettes with games, quiz, conversion and household programs. One of the programs is the ever-popular Biorhythm. Most of these programs require the 16K add-on memory pack.

Timex has already announced 22 program cassettes selling from $9.95 to $19.95: Mixed Game Bag I, The Cube Game, States and Capitols, Grimm's Fairy Tales, Flight Simulator, Stamp Collector, Coupon Manager, The Organizer, Car Pooler, and a host of business-oriented programs as well.

Lamo-Lem's Home Computer Package is an incredible value. Four high-quality 1K machine language programs include Billboard, Checkbook Balancer, Composer and Etch-A-Screen. Included with the program cassette are a manual, guide cards and two color keyboard overlays—all for $9.95, including shipping and handling. Lamo-Lem also offers ZX81 Classics *(Lunar Lander, K-Trek, Mastermind, Life)* and a ZX81 1K Disassembler.

Many other software houses are developing programs and hardware. Once the TS 1000 really starts flowing into the hands of users, many programmers will start supporting the 2K ROM with more elaborate programs for owners without the 16K add-on.




**Back to BASICs: The SHOOT OUT BASIC program from Softsync.**

## Books and Magazines

Over 30 books have been printed in England about the ZX81, from programming games to machine language programming. Some are well-produced, others look like they were slapped together and printed in the dark. Here are some of the better ones.

Softsync and Gladstone both offer *The Complete Sinclair ZX81 BASIC Course.* Priced at $35, it's loaded with good stuff for beginners and intermediate programmers.

Gladstone also carries *Not Only 30 Programs For The Sinclair . . . 1K*, with programming hints, space-saving methods and some explanation of machine language techniques. One of the best books for beginners on the 1000 or the ZX81 is *The Explorer's Guide to the ZX81*, which covers program translation from other basics and the essentials of machine language. Much heavier in the machine language area are *ZX81 ROM Disassembly Part A, ZX81 ROM Disassembly Part B, Understanding Your ZX81 ROM* and *Machine Language Programming Made Simple For Your Sinclair ZX80 and ZX81.*

*The Sinclair ZX81 Programming For Serious Applications* from Dilithium Press is not for beginners. It covers word processing, bulk storage (more than 18,000 pieces of information in 16K), financial, banking and educational programs.

What may be the best BASIC teaching book yet on the ZX81 is Howard W. Sams' *ZX81 BASIC Book.* It is as simple to follow as its title and outstanding for beginners.

The most prominent magazines supporting the 1000 are Sync and Syntax. Other computer magazines publish occasional ZX81 articles. One newsletter that has been published is *The ZX Newsletter South East Region.* This is loaded with up-to-date information and

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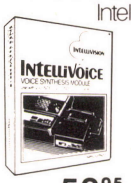

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## TIMEX

*Continued from page 83*

reproduced ads—well worth $2 to anyone interested in keeping up with the latest in ZX-land.

The 16K RAM add-on memory is almost a necessity for serious use of the 1000. It certainly is required for most business programs. However, to use the 1000 to learn programming, the built-in 2K will keep you pretty busy. Don't get the extra memory until you need it, since you will tend to develop memory-wasting habits when you have a lot more than you need. Programming for minimum memory use is good practice for longer programs, where running time is increased significantly with inefficient programs.

Timex and Sinclair are not the only sources for add-on memory. Memotech offers memory packs of up to 64K. So does Data-Assette and Byte-Back.

### Not A Toy

After you've got your memory all set, the next thing you'll want is a printer. This is one of the most useful accessories you can have for learning programming, since you can list your programs. Timex is planning to get the ZX Printer, which it is calling the Timex Sinclair 2020, for $99.95.

Many computer owners have added their own full-size keyboards, with full-stroke keys, to their ZX81. And the same can be done with the 1000. Data-Assette offers two different versions—pre-wired and with the key caps properly identified with all the functions—for $75.

If you can't wait for the Timex modem to connect your telephone to other computers, then Byte-Back has one, with an RS232 port, in kit form for $99.95.

Obviously, the TS 1000 is not a toy posing as a computer. If Timex could develop such an advanced product at such low cost, other companies will not be far behind. Calculators, video cassette recorders and single lens reflex cameras gained widespread public acceptance when their prices came down. It is truly the beginning of the computer revolution.☐

# Dear Mama and Data...

## Letters home from Computer Camp

Dear Mom and Dad,

Hi. Computer camp is fun so far. Here's my ~~[illegible]~~ schedule: In the morning I have computer golf and after that computer tennis. Then we take a simulated nap and after ~~[illegible]~~ LUNCH we have simulated nature hikes and then free time. Last night we all sat around a computer-generated ~~[illegible]~~ campfire graphic which is just like the real thing only you can't toast marshmallows over it. This is just like all the other camps I've been to except we never go outside. I am sending ~~[illegible]~~ back the suntan lotion and insect repellent you packed in my trunk.

Love,
PAUL

Dear Folks,

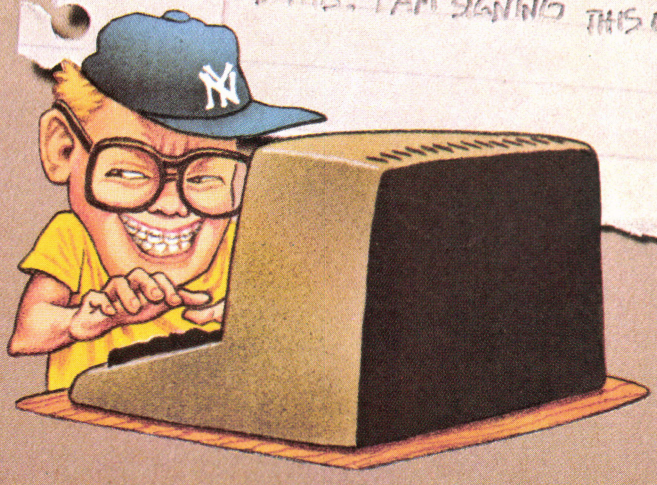
Camp is really great! There's so much to do. Last night we programmed the computer to short-sheet our counselor's bed. Then this morning, we programmed it to make ceramic ashtrays. I think there's going to be trouble when we try to program it to take junior lifesaving.

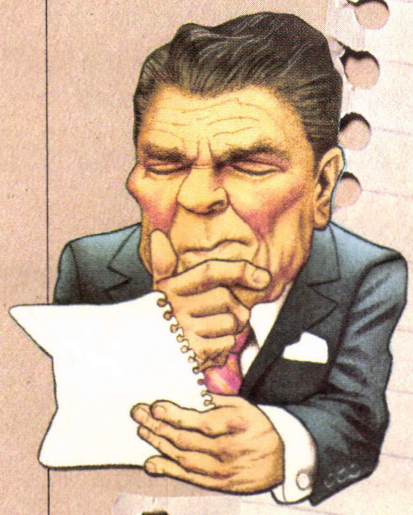
Love,
Marcia

DEAR MOM AND DAD,

REMEMBER THAT FORTY ROOM MANSION YOU WANTED IN HILLSDALE? WELL, IT'S YOURS. YESTERDAY WE FIGURED OUT A WAY TO ACCESS THE COMPUTER AT FORT KNOX AND WE HAVE TRANSFERRED ABOUT TEN MILLION DOLLARS INTO YOUR ACCOUNT AT THE FIRST NATIONAL BANK IN HIGHLAND PARK. PLEASE DON'T TELL ANYBODY WE DID THIS. I AM SIGNING THIS USING A CODE NAME.

LOVE,
YOUR SON





Dear President Reagan,

Don't worry about a nuclear attack by the Russians. We have tapped into the computers at the nuclear arsenals in all the civilized countries in the world, and the United States too. Don't laugh. Me and Richie are in contrd.

Yours sincerely,
James Block

Dear Mom and Dad,

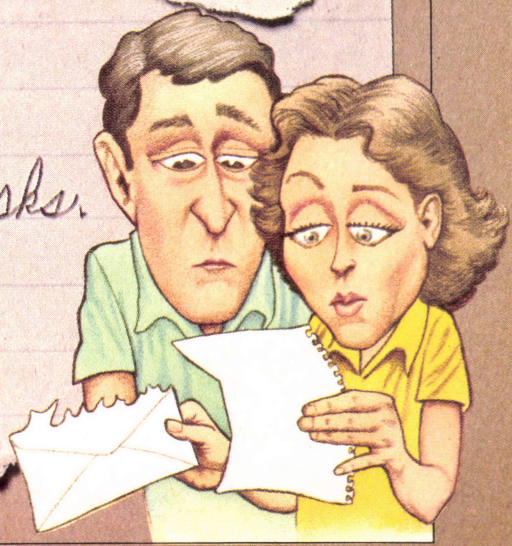
Today the computer was down all day. We had to play baseball, take nature hikes and go swimming. I hope they fix it by tomorrow. There's nothing to do.

Love,
Mark

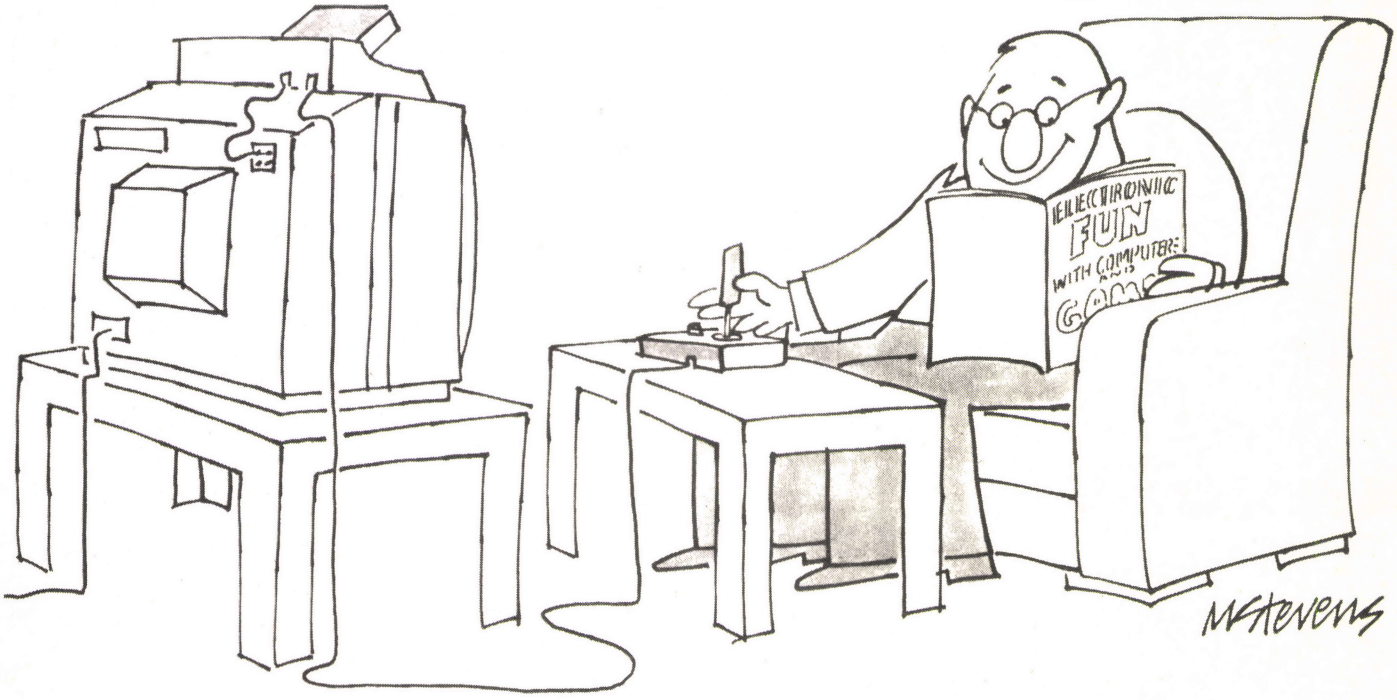
Dear Mom and Dad,

Send ~~money~~ floppy disks.

Love,
John



# Now... a magazine about video and computer games that's as much fun to read as the games are to play!

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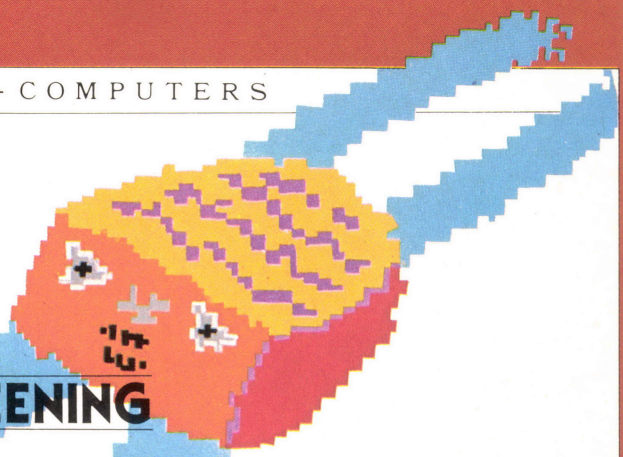


## FIRST SCREENING

# Reader Program Of The Month

*We're waiting to discover you.*

*Send us a game program that you've written and maybe we'll send you $100. Each month in* First Screening, *we're going to print a program that one of our readers has written. If you think you have hidden talent as a game designer and you have a game that you think deserves recognition, send it to us. Be sure to let us know which computer it's for and to include the complete computer program.* *For more information on how to enter, see page 92.*

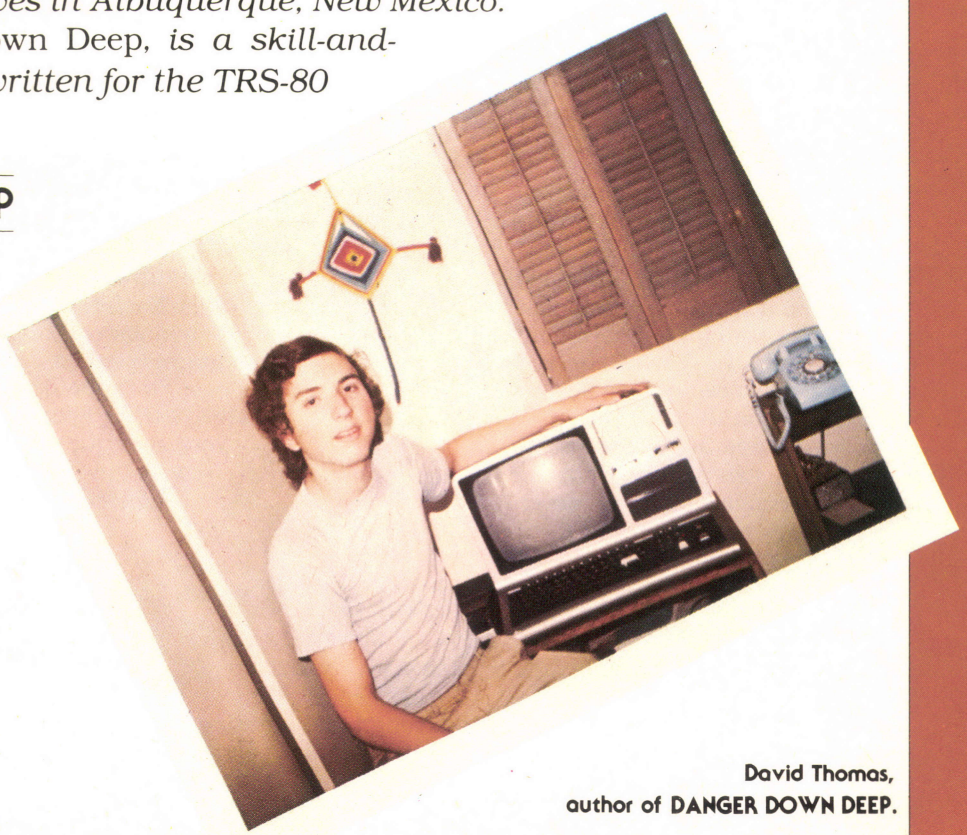
*This month's winner is David Thomas. David is a 16-year-old computerphile who lives in Albuquerque, New Mexico. His program,* Danger Down Deep, *is a skill-and-action game which was written for the TRS-80 Model III computer.*

## DANGER DOWN DEEP

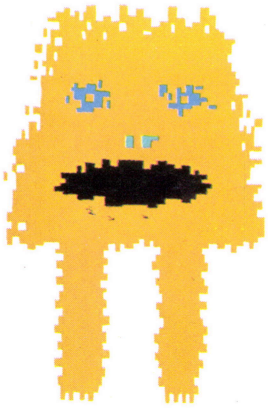
*Danger Down Deep* is a real-time action game of skill and chase for the TRS-80 Model III or with slight modification, for the TRS-80 Model I level 2. The program is relatively short, yet the game is very challenging. In the six months since I created the game, I have failed to master it.

### How to Play

You are trapped in an abandoned mine. The mine consists of 10 levels, connected by one-way shafts shown as "S" on the display. You can go down, but not up. On the tenth level is an amulet, shown as a diamond or a letter "A" on a Model I. Touching the amulet frees you from the mine, along with any gold you may have. On all levels are gold deposits, shown as "G." Of course,



**David Thomas, author of DANGER DOWN DEEP.**



you try to collect as much gold as possible, but you are advised not to be too greedy. Also, on all levels are flowers which give strength to the eater (not necessarily just to you).

## Monsters

There are four kinds of monsters. Bipeds appear on levels one and two, Tripeds appear on levels three and four, Quadrapusses can be found on levels five thorugh seven and Giant Quadrapusses on levels eight to 10. Bipeds are not very smart, smell humans only at very close range and don't fight with much conviction. Tripeds are not very smart either, but are fierce in combat. Quadrapusses are dangerous creatures. They are reasonably intelligent and fairly good fighters. Also, they have a good sense of smell and other threatening qualities I'll let you discover for yourself. Giant Quadrapusses are good fighters, pretty smart and good at detecting your scent from a long way off.

If a monster is not within smelling range, he will wander at random. When wandering, he gains strength every 10 moves. When he smells you, he will chase you. When a monster is on the warpath, he moves at a rate of two spaces per move. You can run away at three spaces per move, but not forever. Sometimes you have to fight, even if you'd love to sneak down the shaft.

## Hazards

There are two unseen hazards in the game. One is visible walls. They appear on impact. Monsters can crash right through them, but for you it's another story. Another hazard is invisible magic doors. If you land on an invisible magic door, you are immediately transported to a random location on the same level. This can help or hinder you.

## Movement

Your guy will be a man, or an "up" arrow on Model 1 machines. Movement is accomplished with the numeric keypad. The keys surrounding the "5" key are for walking in eight directions. To run, hold down the shift key and type the number of the direction you want to run. Running takes energy, so the stronger you are, the longer you can run. If you use up all your strength, you become unconscious. This can be deadly if a monster is nearby. If not, you will wake up in 10 moves.

To take gold, land right on it. To eat a flower or go down a shaft, do the same. But never land on a monster. Fight from one space away. If you are too far apart to fight, the monster will take the liberty of shrinking the distance.

## Strength

When you are not moving, you gain one strength unit every four moves. The monster gains one strength unit every 10 moves. But there is a catch—you have a limit to your strength. At the beginning, your maximum strength is 30 units. Each time you kill a monster, the maximum is raised by two. You should always try to keep your strength up, as the monsters love to show up unexpectedly. If there are flowers nearby, you can sleep to gain strength. By pressing Enter, you sleep for 10 moves and gain eight units of strength. You do not need sleep and you are somewhat vulnerable while sleeping.

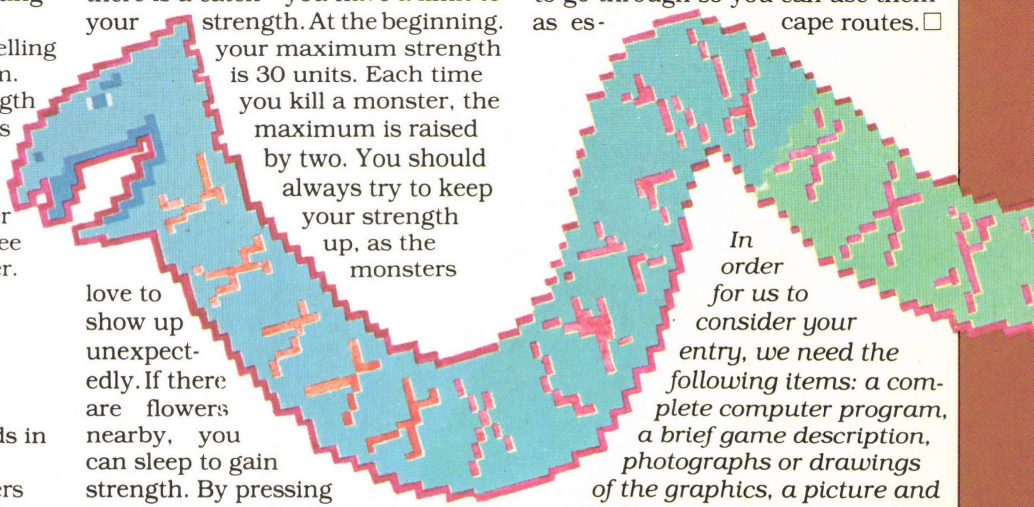
## Combat

To attack a monster, hold down the period or decimal point key. You can move while under attack, but the monster won't stop hitting you. Your strength and the monster's strength are constantly updated at the top of the screen. A strength of zero means a loss of consciousness. You have four guys, so you can be killed three times. If you defeat a monster, you get any gold he was carrying.

## Strategies

Most of the strategy you'll have to figure out for yourself, but here are a couple of hints. The first is the "Flower Trick." Lure the monster into fighting while you are next to a flower. If you look like you'll lose the fight, eat the flower. The monster will get a free punch at you, but the flower gives you a net gain in strength that may save you.

Also, no monsters are smart enough to avoid obstacles. If you stand so that the shaft is between you and the monster, the monster will not know what to do. The shafts are too narrow for monsters to go through so you can use them as escape routes. □

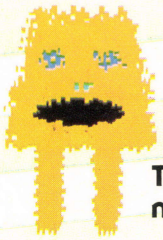


*In order for us to consider your entry, we need the following items: a complete computer program, a brief game description, photographs or drawings of the graphics, a picture and a self-addressed stamped envelope. Send it to: First Screening,* Electronic Fun, *350 East 81st St., NY, NY, 10028. Include your phone number.*

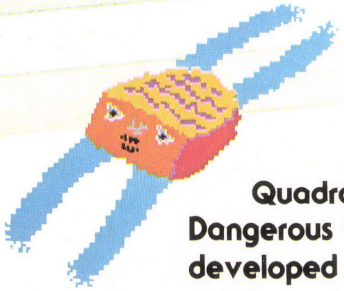
```
1 REM Danger Down Deep
2 REM Program by David Thomas
3 REM do not delete REM statements in middle of program
4 REM For speed, the most usee variables are predefined as @
      and thereby are placed at the top of the symbol table
5 CLEAR 300:DEFINT A-Z:RANDOM:X1=0:Y1=0:MX=0:MY=0:X=0:Y=0:Z=0
6 VI=15360:YOU=253:IT=234:GOLD=71:FOOD=222:STAIR=83:DI=1
7 TI=600:WALL=128:DR=0:AMU=194:R$="Beginning":GUYS=4
10 Q$=")>>=====CONGRATULATIONS=====<<(":ER$="< no monsters around >  "
11 RX=7:RY=3:MAX=30:CLS
13 FORX=16919TO16921:POKEX,0:NEXT:REM Reset mod III clock
14 L=1
15 'Jump here to use next guy
17 S=RND(10)+10:M=0
18 PRINT"Level:";TAB(11);"Strength:";TAB(25);"Gold:";CHR$(30);
19 GOSUB 900:REM Draw guys in ur corner
20 REM Jump here for new level map
21 PRINT@64,CHR$(31);:X1=RND(64)-1:Y1=RND(15):IF RY>7 THEN RY=7
22 IF L=3 THEN IT=223:R$="Intermediate":GOTO 30
23 IF L=5 THEN IT=240:R$="Advanced":GOTO 30
24 IF L=8 THEN IT=238:R$="Expert"
29 REM Next few lines randomly put stuff in dungeon
30 FORTM=1TO8+RND(L):X=RND(64)-1:Y=RND(15):Z=WALL:GOSUB1000:NEXTTM
35 FORTM=1TO2*L:X=RND(64)-1:Y=RND(15):Z=FOOD:GOSUB1000:NEXTTM
40 FORTM=1TO12:X=RND(64)-1:Y=RND(15):Z=GOLD:GOSUB1000:NEXTTM
45 FORTM=1TORND(L*2):X=RND(64)-1:Y=RND(15):IFL<10THENZ=STAIRELSEZ=AMU
50 X=RND(64)-1:Y=RND(15):IFL<10THENZ=STAIRELSEZ=AMU
53 IFX=X1ANDY=Y1THEN50
55 GOSUB1000:SX=X:SY=Y
60 T=10+RND(80)
99 REM Program loops from 100-130 always,
      line 4000=user input and monster combat,
      line 2000=monster movement and player combat
100 PRINT@7,L;@20,S;@30,G;
105 IFM=1THENPRINT"Monster's strength:";MS;ELSEPRINTER$;
110 X=X1:Y=Y1:Z=YOU:GOSUB1000
114 L1=L:IF REST=0 THEN GOSUB 4000:GOTO 116
115 REST=REST-1:IFREST=0THENS=S+8:IFS>MAXTHENS=MAX
116 IFL>L1THENM=0:MG=0:GOTO20
120 IFM=1THENGOSUB2000ELSET=T-1:IFT=0THEN210
130 GOTO100
200 REM Create monster
210 M=1:MX=RND(64)-1:MY=RND(15)
220 IFMX=X1ANDMY=Y1THENM$="A monster materialized on top of YOU...YOU are dead.":GOSUB3000:GOTO9000
230 IFPEEK(VI+MY*64+MX)<>32THEN210
235 BL=S/6+2:MS=MAX-RND(10)
240 GOTO100
900 REM Draw guys in corner
910 TM=15423:G1=GUYS
920 IF G1=1 THEN RETURN
930 POKE TM,YOU:TM=TM-1:G1=G1-1:GOTO920
1000 POKEVI+Y*64+X,Z:RETURN:REM Plot character Z at X,Y
2000 X=MX:Y=MY:Z=32:GOSUB1000:IFABS(MX-X1)<RXANDABS(MY-Y1)<RYTHEN2010
2001 M1=MX:M2=MY:IFL>7THEN2002ELSEX=RND(3)-2:Y=RND(3)-2
2002 IFRND(4)=3THEN2009ELSEX=RND(3)-2:Y=RND(3)-2
2003 MX=MX+X:MY=MY+Y:IFMX<0THENMX=0ELSEIFMX>63THENMX=63
2005 IFMY<1THENMY=1ELSEIFMY>15THENMY=15
2007 GOSUB2900:@1=@1+1:IF@1=10THEN@1=0:MS=MS+1:IFMS>MAX+5THENMS=MAX+5
2008 RETURN
2009 X=SGN(SX-MX):Y=SGN(SY-MY):MX=MX+X:MY=MY+Y:GOTO2003
2010 FORTM=1TO2:M1=MX:M2=MY
2020     IFABS(MX-X1)>1THENONSGN(MX-X1)+2GOSUB2100,2110,2120
2030     IFABS(MY-Y1)>1THENONSGN(MY-Y1)+2GOSUB2200,2210,2220
2040 GOTO2950
2045 NEXTTM
2050 X=MX:Y=MY:Z=IT:GOSUB1000
2055 IFABS(MX-X1)>10RABS(MY-Y1)>1THENRETURN
2070 B=RND(BL)-1:B=ABS(B):S=S-B:IFS<=0THENM$="He has killed you!!!":GOSUB3000:GOTO9000
2090 FORTM=1TO100:NEXTTM:RETURN
2100 MX=MX+1:RETURN
2110 PRINT"ERROR":END
2120 MX=MX-1:RETURN
2200 MY=MY+1:RETURN
2210 PRINT"ERROR":END
2220 MY=MY-1:RETURN
2900 LO=VI+MY*64+MX:P=PEEK(LO):IFP=32THEN2949
2904 IFP=YOU THEN8888
2905 IFP=FOODTHENMM=MAX+5:MS=MS+MM/6+RND(MM/2-MM/6):IFMS>MAX+5THENMS=MAX+5:GOTO2949ELSE2949
2910 IFP=GOLDTHENMG=MG+10+RND(30):GOTO2949
2912 IFP=AMUTHENM=0:T=10+RND(80):RETURN
2915 IFP=STAIRTHEN2001ELSEIFP=DRTHEN2940ELSE2949
2940 IFL>4THENMX=RND(64)-1:MY=RND(15):GOTO2900ELSE2948
2948 MX=M1:MY=M2:LO=VI+MY*64+MX
2949 IFLO>16383ORLO<15424THEN2001ELSEPOKELO,IT:RETURN
2950 LO=VI+MY*64+MX:P=PEEK(LO):IFP=32THEN2999
2955 IFP=FOODTHENMM=MAX+5:MS=MS+MM/6+RND(MM/2-MM/6):IFMS>MAX+5THENMS=MAX+5:GOTO2999ELSE2999
2960 IFP=GOLDTHENMG=MG+10+RND(30):GOTO2999
2965 IFP=AMUTHENM=0:RETURN
2970 IFP=STAIRORP=YOU THEN2998ELSE2999
2998 MX=M1:MY=M2:LO=VI+MY*64+MX
2999 IFLO>16383ORLO<15424THEN2998ELSE2045
3000 PRINT@0,CHR$(30);:M$;:FORTM=1TOTI:NEXTX:A$=INKEY$
4000 FORX=16438TO16444:POKEX,0:NEXTX:A$=INKEY$
4010 FORX=16438TO16444:POKEX,0:NEXTX:IFA$=""THENG=G+1:IFG=4THENG=0:S=S+1:IFS>MAXTHENS=MAX:RETURNELSERETURNELSERETURN
4020 IFA$=""THENG=0+1:IFG=4THENG=0:RETURN
4030 IFA$="R"THENREST=10:RETURN
4040 IFA$="M"THENM=1:RETURN
4045 IFA$="Q"THENCLS:END
4050 IFA$="S"THENCLS:PRINT"Monster's strength:";MS:PRINT"Your strength:";S:PRINT"Gold:";G:PRINT"Level:";L:PRINT"Press any key to continue":A$=INKEY$:IFA$=""THEN4050ELSERETURN
4060 IFA$="H"THENCLS:PRINT"Use arrow keys to move":PRINT"R=Rest":PRINT"M=Monster":PRINT"S=Status":PRINT"Q=Quit":PRINT"H=Help":PRINT"Press any key to continue":A$=INKEY$:IFA$=""THEN4060ELSERETURN
4070 IFA$=CHR$(8)THENX=-1:Y=0:RETURN
4080 IFA$=CHR$(9)THENX=1:Y=0:RETURN
4090 IFA$=CHR$(10)THENX=0:Y=1:RETURN
4100 IFA$=CHR$(94)THENX=0:Y=-1:RETURN
4110 IFA$=CHR$(32)THENX=0:Y=0:RETURN
4120 A=ASC(A$)-32:GOTO4045
```

```
FORTM=1TO100:NEXTTM:PRINT@15,0$;:GOTO9080
MX=MX+1:RETURN
PRINT"ERROR":END
MX=MX-1:RETURN
MY=MY+1:RETURN
PRINT"ERROR":END
MY=MY-1:RETURN
LO=VI+MY*64+MX:P=PEEK(LO):IFP=32THEN2949
IFP=YOU THEN8888
IFP=FOODTHENMM=MAX+5:MS=MS+MM/6+RND(MM/2-MM/6):IFMS>MAX+5THENMS=MAX+5:GOTO2949ELSE2949
IFP=GOLDTHENMG=MG+10+RND(30):GOTO2949
IFP=AMUTHENM=0:T=10+RND(80):RETURN
IFP=STAIRTHEN2001ELSEIFP=DRTHEN2940ELSE2949
IFL>4THENMX=RND(64)-1:MY=RND(15):GOTO2900ELSE2948
MX=M1:MY=M2:LO=VI+MY*64+MX
IFLO>16383ORLO<15424THEN2001ELSEPOKELO,IT:RETURN
LO=VI+MY*64+MX:P=PEEK(LO):IFP=32THEN2999
IFP=FOODTHENMM=MAX+5:MS=MS+MM/6+RND(MM/2-MM/6):IFMS>MAX+5THENMS=MAX+5:GOTO2999ELSE2999
IFP=GOLDTHENMG=MG+10+RND(30):GOTO2999
IFP=AMUTHENM=0:RETURN
IFP=STAIRORP=YOU THEN2998ELSE2999
MX=M1:MY=M2:LO=VI+MY*64+MX
IFLO>16383ORLO<15424THEN2998ELSE2045
PRINT@0,CHR$(30);M$;:FORTM=1TOT:NEXTTM:RETURN
FORX=16438TO16444:POKEX,0:NEXTX:A$=INKEY$
IFA$=""THENG=G+1:IFG=4THENG=0:S=S+1:IFS>MAXTHENS=MAX:RETURNELSERETURNELSERETURN
IFA$=CHR$(13)THENREST=10:RETURN
IFA$="."THEN4300 'attack monster
A=ASC(A$):IFA>32ANDA<42THENDI=3:A=ASC(A$)-32:GOTO4045
IFVAL(A$)=0THENRETURNELSEA=VAL(A$)
X=X1:Y=Y1:Z=32:GOSUB1000:X2=X1:Y2=Y1
ONAGOSUB4110,4120,4130,4140,4150,4160,4170,4180,4190
IFDI=3THEN DI=1:S=S-3:IFS<=0THENREST=10
IFX1>63THENX1=63ELSEIFX1<0THENX1=0
IFY1>15THENY1=15ELSEIFY1<1THENY1=1
P=PEEK(VI+Y1*64+X1):IFP=32THENRETURN
IFP=GOLDTHENG=G+10+RND(30):RETURN
IFP=FOODTHENS=S+MAX/6+RND(MAX/2-MAX/6):IFS>MAXTHENS=MAX:RETURNELSERETURN
IFP=ITTHENM$="You walked right into a monster's mouth!":GOSUB3000:GOTO9000
IFP=DRTHENX1=RND(64)-1:Y1=RND(15):GOTO4060
IFP=WALLORP=191THENPOKEVI+Y1*64+X1,191:X1=X2:Y1=Y2:RETURN
IFP=STAIRTHENL=L+1:RX=RX*1.15:RY=RY+1:RETJRN
IFP=AMUTHENG=G+MG:L=11:GOTO9000
RETURN
X1=X1-DI:Y1=Y1+DI:RETURN
Y1=Y1+DI:RETURN
X1=X1+DI:Y1=Y1+DI:RETURN
X1=X1-DI:RETURN
RETURN
X1=X1+DI:RETURN
X1=X1-DI:Y1=Y1-DI:RETURN
Y1=Y1-DI:RETURN
X1=X1+DI:Y1=Y1-DI:RETURN
X=X1:Y=Y1:Z=32:GOSUB1000:S=S-5:ONA-32GOTO4410,4420,4430,4440,4450,4460,4470,4480,4490
IFM=0THENRETURN
IFABS(MX-X1)>10RABS(MY-Y1)>1THENRETURN
IFABS(MX-X1)>10RABS(B):MS=MS-B:IFMS<=0THENM=0:X=MX:Y=MY:Z=32:GOSUB1000:G=G+MG:MG=0:MAX=MAX+2:T=10+RND(80):MK=MK+1:RETURN
B=RND(BL)-1:B=ABS(B):MS=MS-B:IFMS<=0THENM=0:X=MX:Y=MY:Z=32:GOSUB1000:G=G+MG:MG=0:MAX=MAX+2:T=10+RND(80):MK=MK+1:RETURN
RETURN
M$="A monster was transported on top of you...You're dead.":GOSUB3000:GOTO9000
FORTM=1TOT:NEXTTM:CLS:IFL=11THENPRINT@15,0$:PRINTTAB(25)"You made it!"
IF L<11 THEN GUYS=GUYS-1:IFGUYS>0THEN15
PRINT@320,;
LC=10:RC=40
PRINTTAB(LC);"Level:";TAB(RC);:IFL<11THENPRINTLELSEPRINT" Complete."
PRINTTAB(LC);"Rank:";TAB(RC+1);R$;" explorer."
REM Omit next line on Model One
PRINTTAB(LC);"Time spent:";TAB(RC+1);RIGHT$(TIME$,8)
PRINTTAB(LC);"Total monsters killed:";TAB(RC);MK
PRINTTAB(LC);"Total gold collected:";TAB(RC);G
PRINTTAB(LC);"<Type R to restart game, E to exit>"
A$=INKEY$:IFA$="R"THENRUNELSEIFA$="E"THEN9100
IFL<11THEN9080ELSEFORTM=1TO100:NEXTTM:PRINT@15,CHR$(30);:FORTM=1TO100:NEXTTM:PRINT@15,0$;:GOTO9080
IFL=11THENPRINT@15,0$;
PRINT@896,;:END
'variables:
'M Presence of monster, 0=no,1=yes
'MS=monster's strength
'MG=Gold collected by monster
'MX,MY=coordinates of monster if present
'MAX=Your maximum strength
'RX,RY Define monster's smelling radius of human
'L=your level
'S=your strength,G=gold collected,MK=monsters killed
```

## The Monsters:



**Bipeds — These monsters are not smart.**



**Quadrapusses — Dangerous with a highly developed sense of smell.**

**Tripeds — Dumb but fierce.**

## BOY WONDER

*Continued from page 33*

EF: So what are your favorite games?

Turmell: Okay, in the arcades, without a doubt, it's *Robotron 2084* and number two would be *Asteroids.* In the home, for the Atari, I'd have to say *Missile Command,* and *Donkey Kong* would be up there.

EF: Of course. Mark, what advice would you give to a kid who wants to be a designer like you are?

**Turmell:** Read a lot. The trade journals especially. After that I'd say, try to do something some other kid would never do in his whole life. The companies are always looking for good programmers and you should come up with a game and send it to a lot of them to get your name in front of all of them. And be sure that your first game is, in your mind, the tops in its field—the best you can possibly do. Because if you blow it the first time, you might have blown it forever.

EF: What's your next game, Mark?

**Turmell:** Well, 20th Century-Fox, as you know, is a movie company, so they own the rights to a lot of titles that people are instantly familiar with. We've been screening a lot of movies lately to see how we would turn them into video games. The first one we'll be coming out with will be *Alien, Megaforce, Fantastic Voyage* and *M*A*S*H.*

EF: What do you want to be doing in 10 years?

**Turmell:** Owning a professional sports team. That would be interesting.

EF: Would you still design video games?

Turmell: I'd like to still be involved with them. The industry is a young industry and I'd like to still be a part of it if I'm not too burned out.

EF: And what do you think video games will look like then?

**Turmell:** It's going to be very exciting. Of course, you're going to see phenomenal graphics and sound. But aside from that, I think games will become a part of their environment. I can see games where a bunch of people in different houses, or different parts of the country even, play the same game. There will be fantasy-type situations where you can just dream up a situation, say a three-headed creature, and play a game with it. Or you could just decide to program a game in your home where Muhammad Ali is fighting against Joe Louis . . . or Dolly Parton for that matter. Pretty soon we'll have holographic games. It's all happening very fast.□

## HOLLYWOOD

*Continued from page 27*

creative community reacts to a given project. As a matter of fact, we will give a games project the same creative consideration we would afford a theatrical motion picture sequel. Beyond that, it's a matter of deciding which game situation best compliments that particular property."

Al Pepper agrees. "Box office success is important, because there you have immediate awareness. Then you have to look at the film for a concept, and ask, 'Can I take that into a game format?' Most importantly, you've got to come up with a game that's fun to play." Pepper hints that one such "fun" game might be Fox's adaptation of *Alien*, which is currently in the development stage. "That one worked very well as a movie, and I think it'll be equally popular as a game."

Interestingly enough, the Pac-Man phenomenon has reversed the usual pattern of events. Instead of being an adaptation from another medium, the little yellow gobbler's arcade success has spawned a pop hit single and an animated TV series, which features longtime actor/comedian Marty Ingels as Pac-Man's voice. And there's talk of a Pac-Man feature film as well.

The prevailing attitude is still leaning toward the adaptation of films to games, and in the near future we may see simultaneous releases of prestigious feature films and video games based on them. "That'll be difficult to gauge," admits MCA's Fiedler. "We'll have to select a property and develop it while the movie's in production, and hope both of them do well.

Of course, simultaneous releases of movies and games might not be as easy to handle as you might think. For instance, *E.T.* was, in Jim Fiedler's words, "a deep, dark secret" up until six weeks before its initial theatrical release. Director Steven Spielberg was extraordinarily careful not to reveal any details of the movie's plot, so as not to lose any of the dramatic impact. It would have been all but impossible for anyone to have developed a game in time for the picture's release.

Another factor to be considered: While a film may look like a real comer early on, it might not have the "legs" to keep it in the public eye. Disney's *Tron,* for example, was the subject of considerable excitement and enthusiasm before it was released. When the picture was being previewed, audiences flocked to see it. But reviews were mixed, and after a group of Wall Street hotshots screened it, Disney stock went down. When it went into general release, the picture met with mildly enthusiastic but decidedly limited audience response. There's already a *Tron* arcade game, and Mattel has a home version, but the air of high hopes for *Tron* has dissipated somewhat.

Having a successful video game adapted from a hit movie is by no means a sure thing, which games manufacturers and movie studios alike will certainly learn. Vectrex's Lee Chaden offers a word of warning: "Just because a game is drawn from a hit movie, that's no indication that it's going to go through the roof, and I think that some of the major studios moving into the games business are putting more value on movie titles than the marketplace will."

Nonetheless, you can continue to look for home game versions of favorite movies for some time yet; a plethora of film adaptations will be available shortly, and there are more on the drawing boards. Who knows where it'll lead? Maybe the demand for spin-off games will become so great that—well, picture for yourself: games based on *My Mother the Car . . . Heaven's Gate . . . Plan Nine From Outer Space . . .*

The possibilities are staggering.□

## BUYERS GUIDE

*Continued from page 81*

### Commodore VIC-20 and Max Machine

Upon debut, the VIC-20 and its near cousin, the MAX Machine, surprised the computing community by smashing traditional price barriers. At under $300, VIC-20 stands as one of the lowest-priced full-function home computers available today, $100 less than the most popular Radio Shack model and several hundred dollars cheaper—and far more capable—than the comparable Atari 400. The $179 MAX unit was introduced this year to compete with both the Atari VCS and Mattel Intellivision game systems—which it does admirably, being a superb game machine *and* a programmable personal computer as well as a music synthesizer.

You'll find the VIC-20 a very capable computer at a great starter price. The basic system includes 5K of user RAM expandable to 32K, programmable sound generator, outputs for Atari-type joystick controllers and game paddles or light pen, built-in TV connection, cassette interface, cartridge slot and typewriter-style one-piece keyboard. Much of the VIC's power and flexibility comes from this multi-function keyboard. Indeed, each VIC key performs double and sometimes triple or quadruple duties. Keys with letters on top can be made to display the upper and lowercase characters plus the two graphics symbols located on the face of the key.

In addition to the powerful keyboard, VIC gives users the ability to easily control any of the eight screen-border colors or 16 interior screen colors character by character. Graphics are high-resolution quality. Hardware accessories include a $395 graphics printer and a $109.95 telephone modem for communicating with remote databases.

The latest plug-in cartridge games available for the VIC-20 include three $39.95 Bally/Midway arcade games, *Gorf, Wizard of Wor* and *Omega Race*; Commodore's *Space Vulture, Raid on Fort Knox* and *Pinball Spectacular;* and five $39.95 Scott Adams adventure games, *Adventureland Adventure, Pirate Cove Adventure, Mission Impossible Adventure, The Count Adventure* and *Voodoo Castle Adventure.*

The Commodore MAX Machine sports an advanced microprocessor, an all-in-one flat, button-touch membrane keyboard, the same 16-color, high resolution graphics capability as the VIC and a sound system capable of reproducing three independent voices. The unit comes with only 2K bytes of memory, expandable to 4K bytes. However, the MAX accepts all VIC games and other programs as well as many of the same peripherals. An optional piano keyboard terminal is available for sophisticated music synthesis.

### Colecovision Conversion Module

After building ColecoVision, lauded as the most spectacular color/graphics game machine in existence (save, perhaps, for Atari's new System 5200), the company went right back to the drawing board to conjure up an attachable computer keyboard which converts the game unit into a genuine, programmable personal computing system.

From the user's standpoint, this building block method has quite a few advantages. First, buying the games-only system gives you a chance to become intimate with all the major features. Then, as your thirst for computing power grows, you can leap right into an expanded system with which you are already familiar, instead of having to learn a new machine's idiosyncrasies.

The key to the $200 ColecoVision's add-on capabilities is its expansion interface, a device found on most home computers (but on few games systems) that allows connection of various peripherals. The company prefers to keep exact product specifications under its hat for the moment. To be priced around $100, we do know the terminal will include full-function typewriter-style keys and an expanded memory. All modules are due out next year. We also have a hunch that future peripherals, such as disk drives, printers and modems, are in the works, as Coleco noted recently that it will next move into home computer software publishing.

The preceding list is by no means a complete guide to all the personal computers with game capabilities. There are scores of companies manufacturing computers mostly for small business applications, but which have sophisticated game software available. These firms include Sinclair, Northstar and IBM, to name a few.

### Don't Forget Software

Another thing to keep in mind when it comes to playing games on computer is the sheer variety of games available. The number of independent software houses manufacturing highly intricate games for the Atari 400/800, Apple II and TRS-80 are legion. Some sources estimate there may be as many as 300 firms, which is not hard to believe when you realize that anyone with a cassette recorder and an Apple II can design a game, store the program on cassette, duplicate it and sell it.

Some of the most noteworthy computer software makers include Muse, offering such games as *Castle Wolfenstein* ($29.95) and *Robot War* ($39.99); On-Line Systems, featuring *Jawbreaker* ($29.95), which was just adapted by Tigervision to the VCS format; Arcade Plus, offering *Ghost Hunter*; and Epyx, whose latest, *Crush, Crumble & Chomp* ($29.95), is about a movie monster that gets out of hand.

There are literally hundreds of such games to choose from. Many of these independent companies make their software available on disk. Although the cost of getting a disk drive may be more than some players can handle, the increased sophistication of the games makes it a good investment.□

# NEXT MONTH...

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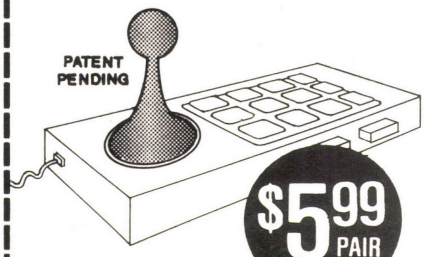


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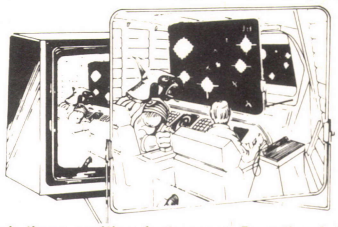

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**CUBE STAKE:** Good news for cubeniks. If the only use you've found for your cube puzzle so far is to throw it at a younger sibling, take heart. **Block Buster** can help. **Block Buster** is a computer program designed to help you solve the mystery of the cube. Not only does it display all six sides of the cube at once but it can be programmed to conform to the configuration of the real cube which has you stumped and then, with one command, solve it for you. Or, if you're masochistic, you can command **Block Buster** to scramble a puzzle for you which you can then solve. Available through the **Atari Program Exchange** . . .

**RADIO SHACK AND INTELLIVISION:** **Radio Shack's** marriage with **Mattel's Intellivision,** called **Tandyvision ™ One,** is now in most **Radio Shack** stores along with 15 cartridges. Stores also have **Intellivision Hot Line** for ordering **Mattel** game cartridges for customers in a hurry. New in the 1983 **Radio Shack** catalog are eight games for the **Color Computer,** plus new **Poltergeist** game that came out too late to make the catalog . . .

**NEW FORMAT FROM IMAGIC:** Game cartridge maker **Imagic**, which has an impressive lineup of **Atari VCS** game carts, started to ship **Intellivision**-compatible cartridges in October. Because of the linkup between **Radio Shack** and **Mattel,** new **Imagic** game carts will also play on **Tandyvision** machines. The company will soon release its first game for **Atari 400/800—Demon Attack,** slated to hit the stores in December and January . . .

**SINCLAIR'S NEWEST:** The **ZX Spectrum** color computer bowed in England recently and is getting rave reviews there. Designed to hook up to your color TV set, it has 16K of user RAM and another 16K of ROM which holds the BASIC, the operating system, color generator, graphics and sound. It sells in the U.K. for about $200 with the 48K model going for about $300. Introduction in the United States is planned for sometime in early 1983 . . .

**MAX IS LATE:** New Commodore **MAX** computer to sell for $179.95 retail is being anxiously awaited, but is expected to reach only a few stores this month in very limited quantities. The reason: Commodore's $300 **VIC-20** has taken off this year with sales zooming, so the company is cranking out **VIC**s like crazy. The **MAX** will have its own software, and is bowing with about a dozen $29.95 plug-in cartridges, including games, music, BASIC programming, math and the Visible Solar System, with more to come. It has a membrane keyboard with raised blips to make key positions easier to find. In the meantime, watch a real sleeper—Commodore **64**, a higher-priced version of the **VIC** with 64K of user RAM. It's priced in the $500 range . . .

**QUICKIES:** If you own a computer, there are some wild times ahead. New games—**Preppie** (Adventure International), in which you maneuver your Preppie past speeding golf carts and runaway lawn mowers...**Nukewar** (Avalon Hill), in which you defend the democratic way of life from nuclear annihilation by unfriendly neighbors engaged in massive arms build-up...**Reagonomics** (Spectravision), in which you are in total charge of the country's Gross National Product . . .

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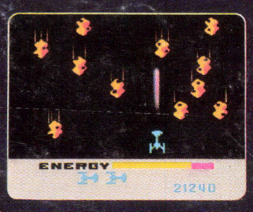


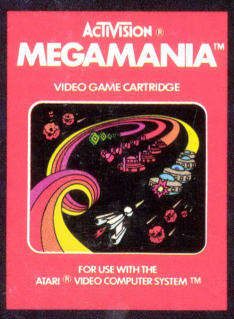


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